





NOISE REDUCTION MOUNTS



Noise isolation ceiling



FZ + Sylomer®



TSR + Sylomer®





SRB & SRS + Sylomer®



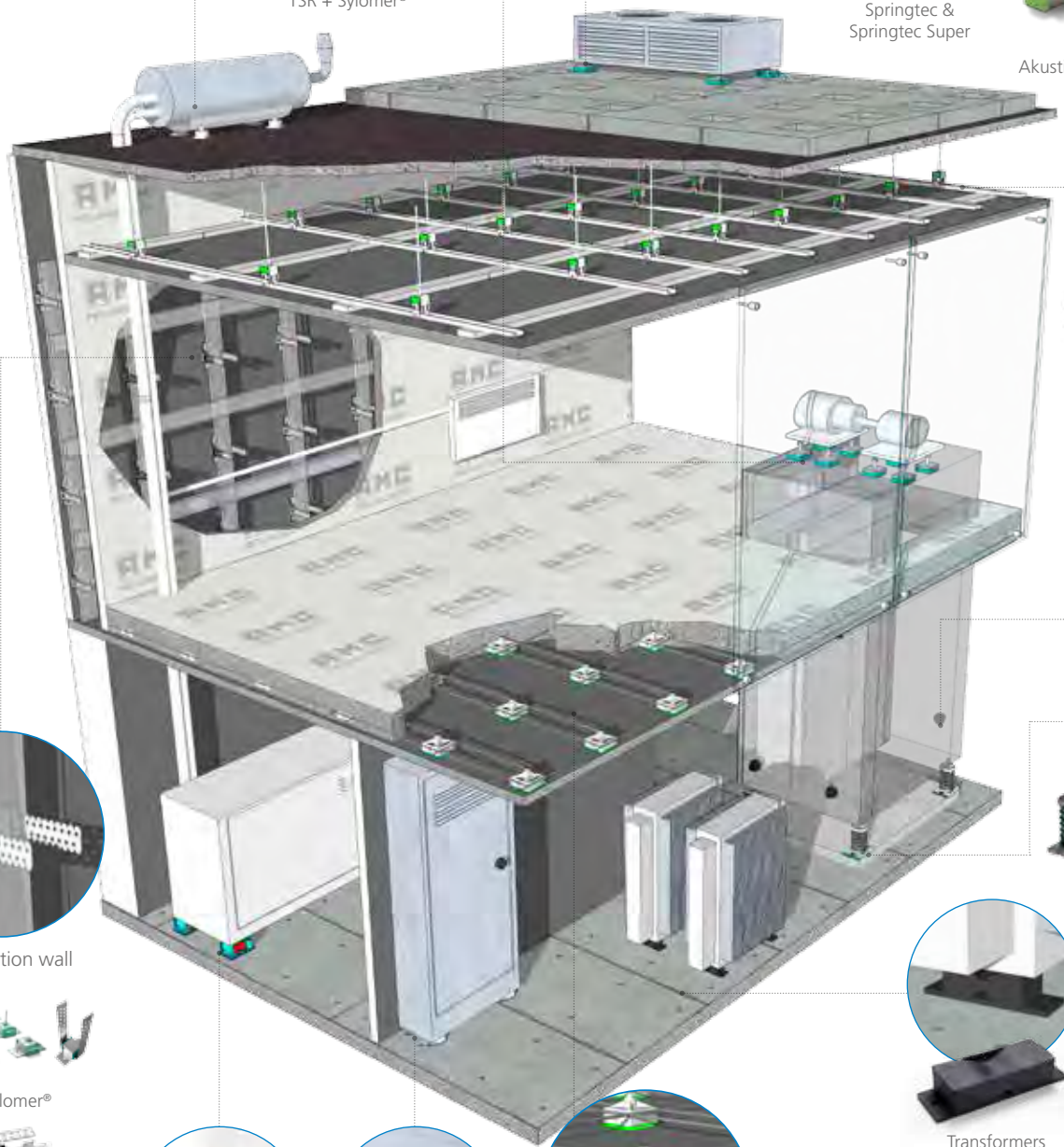
Grand Akustik



Springtec & Springtec Super



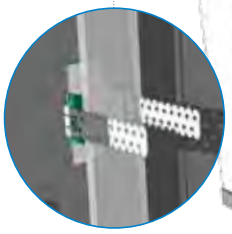
Akustik + Sylomer®





SCB





Noise isolation wall



Vibrabsorber + Sylomer®

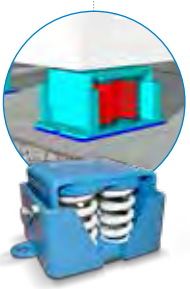


EP+Sylomer®

Transformers



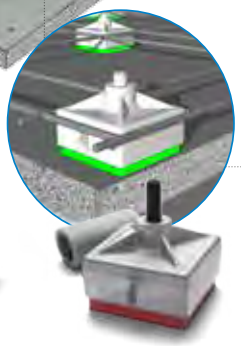
EP



4 AMC Seismic +Sylomer®



BRB



FZH + Sylomer®

Noise isolation floor



BASIC INFORMATION ON STRUCTURAL ACOUSTICS

1.-NOISE AND VIBRATION PROBLEMS IN PREMISES

Sound that is unpleasant to the human ear is known as noise, and ecologically speaking is a form of pollution that is becoming increasingly more widespread due to town and city development.

It could be defined as a vibratory phenomenon propagated in an elastic medium (ceilings, walls, floors and the air itself) causing perturbations in it. To isolate any premises or venue properly, the first step is to identify the composition and the values of the noise (spectrum of frequencies, noise level etc.).

Once we know the magnitude of the noise or the vibrations to be insulated, we must built an unconnected off-the-floor frame which gives us the insulating and dampening values we need.



2.-THE FUNCTION OF THE ANTIVIBRATION MOUNTS IN A SOUND-PROOFED PREMISES

All rigid connections of the false structure or "frame" of the premises must be installed elastically onto the definitive slabbing. If any rigid joint is left it will act as acoustic bridge and would annul the efficacy of the other acoustic elements placed: antivibratory, absorbents, fibreglass, plasterboard, concrete etc. There are several elements designed for the insulation of ceilings, walls and floors.



Ceiling mounts



Wall Mounts



Floor Mounts

3.-ANTIVIBRATION SOLUTIONS

A. RUBBER

Natural frequency between 7 - 15 Hz
High dampening.
Small static deflections.
Effective in medium and high frequencies.





B. SPRING

Low natural frequency of 3 - 6 Hz.
Same static and dynamic behaviour.
Low dampening, excellent insulation.





C. SPRING RUBBER

Natural frequency of 3 - 15 Hz.
High dampening and insulation.
Effective at all frequencies.





BASIC INFORMATION ON STRUCTURAL ACOUSTICS

4.- THE IMPORTANCE OF THE DYNAMIC FREQUENCY OF THE ANTIVIBRATION MOUNTS.

Real data are required to carry out a study and calculation of a premises.

The static stiffnesses that are provided by static load-deflection graphs are not valid for the calculation of a realistic insulation. Experience shows that the static calculations are very different from reality.

At the moment, AMC has a dynamic testing machine that can generate the most common types of vibration on premises, giving real frequency values, insulation, loss angle and critical dampening rate.

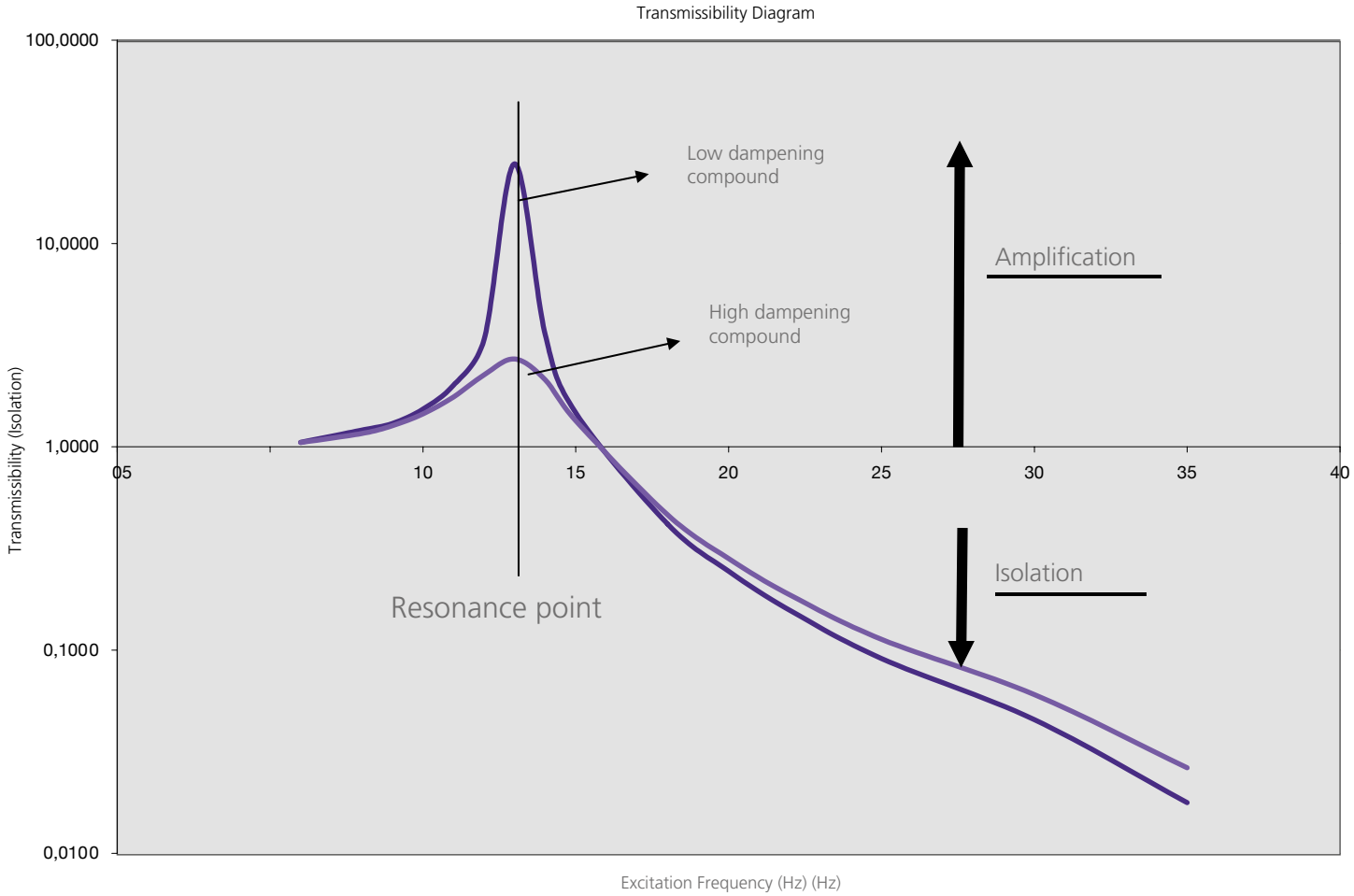


Dynamic testing machine

5.- INSULATION AND DAMPENING. GOOD INFORMATION BETTER SOLUTION.

Thanks to the testing we have nowadays, it is possible to clear up the role of dampening in a mass-spring insulation.
Elements with high dampening absorb part of the vibration energy that reaches them, so if resonance occurs, they absorb part of this energy, reducing its negative effects. On the other hand, in the event of resonance, low dampening elements amplify the vibration without absorbing energy.

Example of isolation and damping of vibrations.



Akustik Range

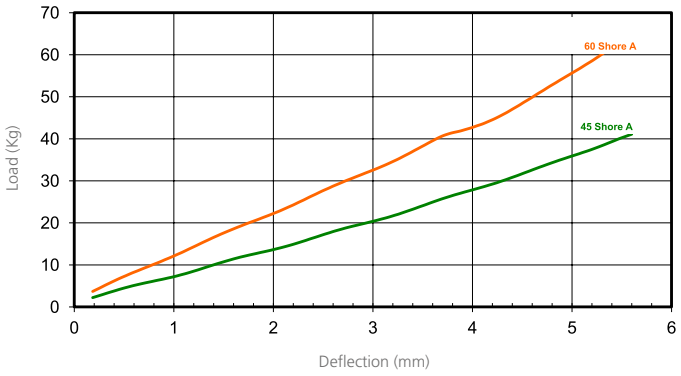


A-45 Loads from 8 to 30 kg | B-60 Loads from 25 to 60 kg

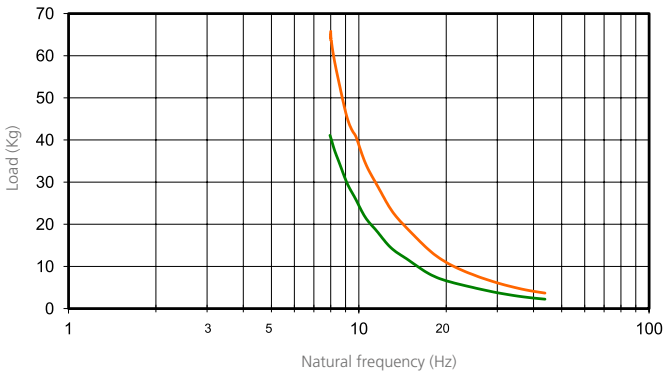
Range designed for suspension of false acoustic ceilings and machinery operating at more than 1.000 r.p.m. The same vibration damping element which is used throughout the Akustik range is made of rubber of high mechanical performance; it is specially designed for vibration damping. The metallic structure is designed to resist loads up to 650 kg. It its supplied with an anti-corrosive zinc-plated coat.

Dynamic behaviour

Static load deflection graph



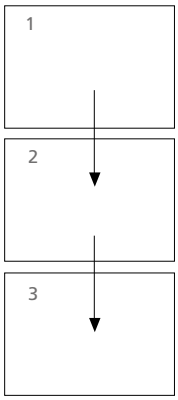
Natural frequency graph



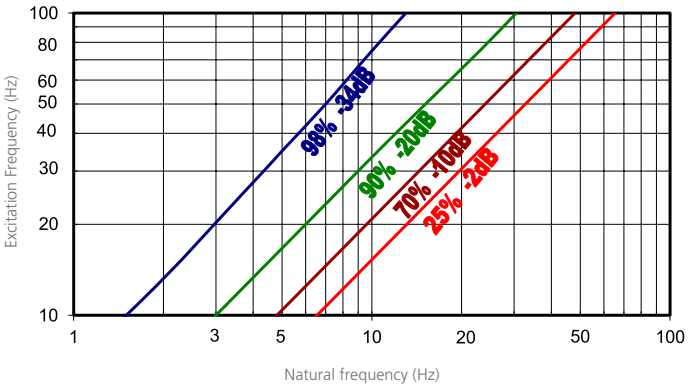
To select correct mounting, following data are needed:

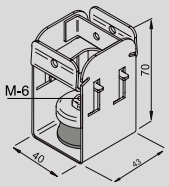
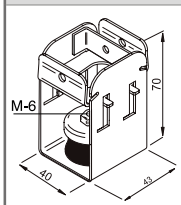
- Load per mounting (kg).
- Disturbing frequency (Hz).

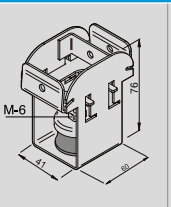
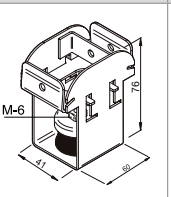
Select correct load line in diagram 1 and refer to diagram 2 to obtain the Natural frequency. With this natural frequency prolong this line to the diagram 3 and obtain the % of isolation at the given Excitation Frequency (Hz).

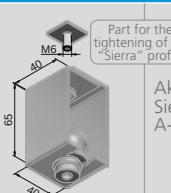
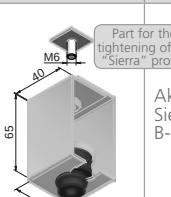


% of isolation and attenuation in dB



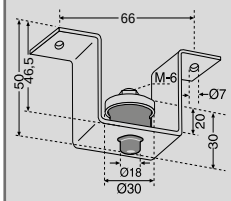
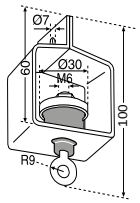
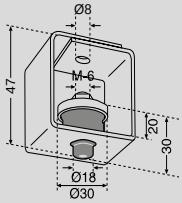
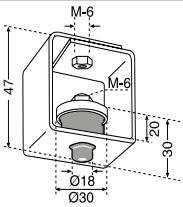
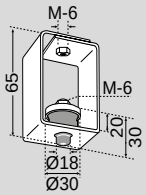
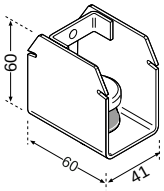
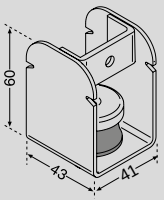
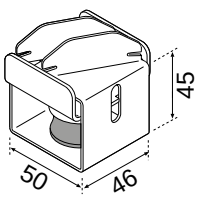
	REF. AMC	LOAD	CODE
	Akustik Super T-47 A-45	8-30 Kg.	23801
	Akustik Super T-47 B-60	25-60 Kg.	23802

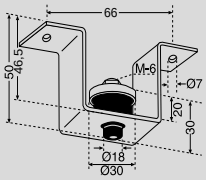
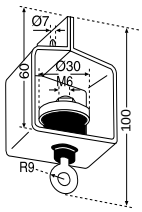
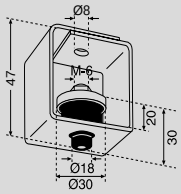
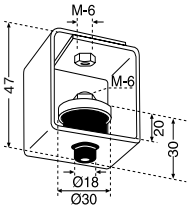
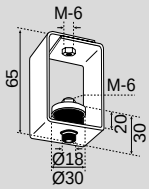
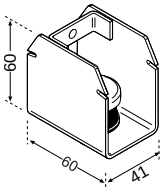
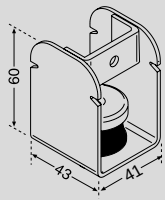
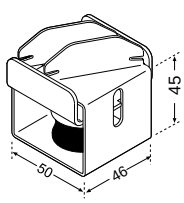
	REF. AMC	LOAD	CODE
	Akustik Super T-60 A-45	8-30 Kg.	23811
	Akustik Super T-60 B-60	25-60 Kg.	23812

	REF. AMC	LOAD	CODE
	Akustik Sierra A-45	8-30 Kg.	23861
	Akustik Sierra B-60	25-60 Kg.	23862

NEW

CEILING MOUNTS

REF. AMC		LOAD	CODE	SUMMARY
	Akustik 1 A-45	8-30 Kg	23101	Fitted directly to ceiling using two holes.
	Akustik 2 A-45	8-30 Kg	23111	Anchoring to the ceiling with hooks.
	Akustik 3 A-45	8-30 Kg	23121	Fitted by using an M-6 rod and a nut.
	Akustik 4 A-45	8-30 Kg	23131	Fitted to ceiling using an M-6 rod.
	Akustik 4 high A-45	8-30 Kg	23133	Fitted to ceiling using an M-6 rod.
	Akustik Rapid T-60 A-45	8-30 Kg	23143	Fitted to ceiling using an M-6 rod.
	Akustik Rapid T-47 A-45	8-30 Kg	23145	Designed for easy and accesible fitting together with great strenght.
	Akustik Safety T-47 A-45	8-30 Kg	23210	The rotational system of the part assures the correct installation thanks to the design of the metal part at 45°.

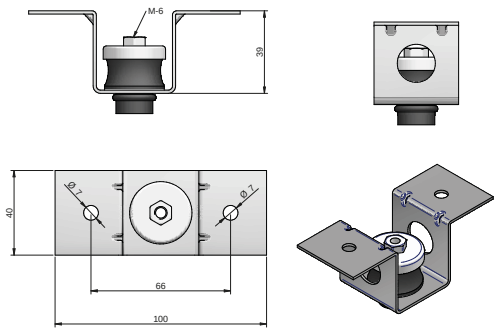
REF. AMC		LOAD	CODE	SUMMARY
	Akustik 1 B-60	25-60 Kg	23102	Fitted directly to ceiling using two holes.
	Akustik 2 B-60	25-60 Kg	23112	Anchoring to the ceiling with hooks.
	Akustik 3 B-60	25-60 Kg	23122	Fitted by using an M-6 rod and a nut.
	Akustik 4 B-60	25-60 Kg	23132	Fitted to ceiling using an M-6 rod.
	Akustik 4 high B-60	25-60 Kg	23134	Fitted to ceiling using an M-6 rod.
	Akustik Rapid T-60 B-60	25-60 Kg	23144	Fitted to ceiling using an M-6 rod.
	Akustik Rapid T-47 B-60	25-60 Kg	23146	Designed for easy and accesible fitting together with great strenght.
	Akustik Safety T-47 B-60	25-60 Kg	23213	The rotational system of the part assures the correct installation thanks to the design of the metal part at 45°.

CEILING MOUNTS

Akustik Range

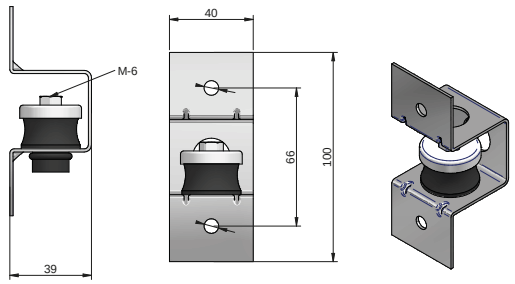
Akustik 1 Lateral (Standard position)

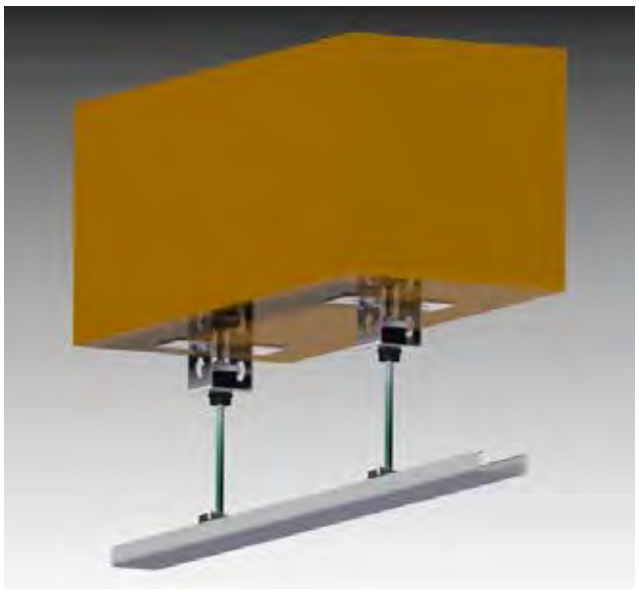
NEW

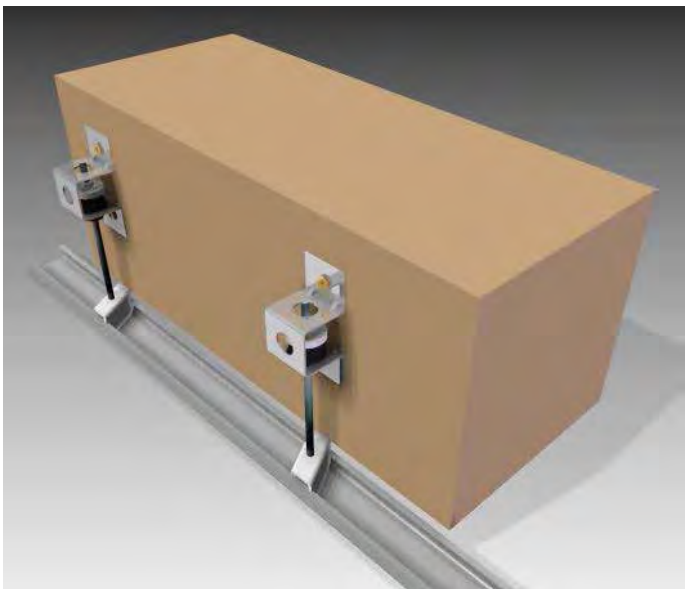


Akustik 1 Lateral

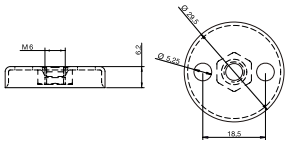
NEW







REF. AMC	LOAD	CODE
Akustik 1 Lateral A-45	8-30 Kg	23571
Akustik 1 Lateral B-60	25-60 Kg	23572

REF. AMC	LOAD	CODE
	Levelling bell	23159

Steps of the installation for the Akustik Safety



1. Place the part inside the beam.



2. Turn the part inside the beam until it is fixed.



3. The safety system falls by gravity, embracing the profile automatically.

CEILING MOUNTS

Grand Akustik range

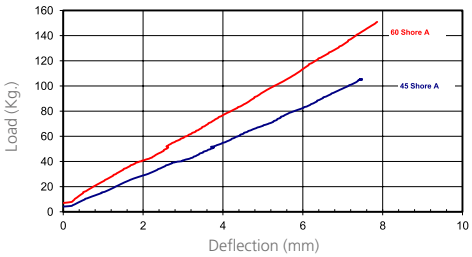
A-45 load from 40 to 100 kg | B-60 load from 80 to 150 kg

Range designed for suspension of false acoustic ceilings and machinery operating at more than 1.000 r.p.m. The same antivibration element is used for all the range. This element is made of rubber offering high mechanical performance and t is specially studied for vibratory insulation. The metallic structure is designed lo resist loads up to 1000 Kg. It its supplied with an anticorrosive zinc-plated coat.

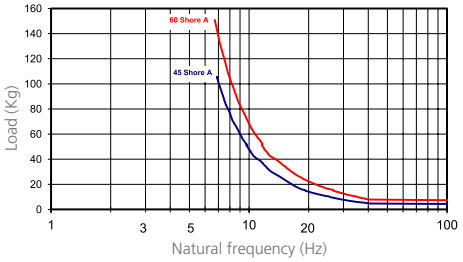


Dynamic behaviour

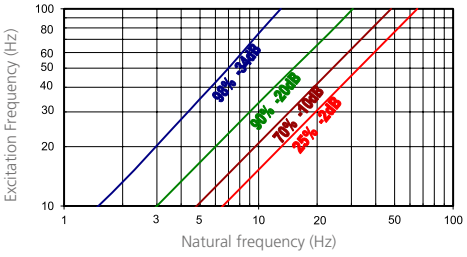
Static load deflection graph

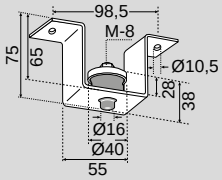
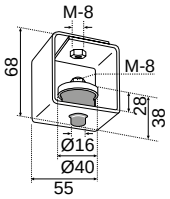
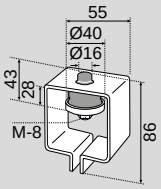
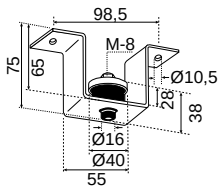
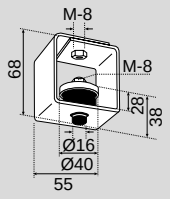
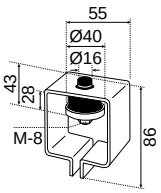


Natural frequency (Hz)



% of isolation and attenuation in dB



	REF. AMC	LOAD	CODE
	Grand Akustik 1 A-45	40-100 Kg.	23201
	Grand Akustik 2 A-45	40-100 Kg.	23211
	Grand Akustik 3 A-45	40-100 Kg.	23221
	Grand Akustik 1 B-60	80-150 Kg.	23202
	Grand Akustik 2 B-60	80-150 Kg.	23212
	Grand Akustik 3 B-60	80-150 Kg.	23222



Grand Akustik 3



Grand Akustik 2



Example of installation

CEILING MOUNTS

Springtec range

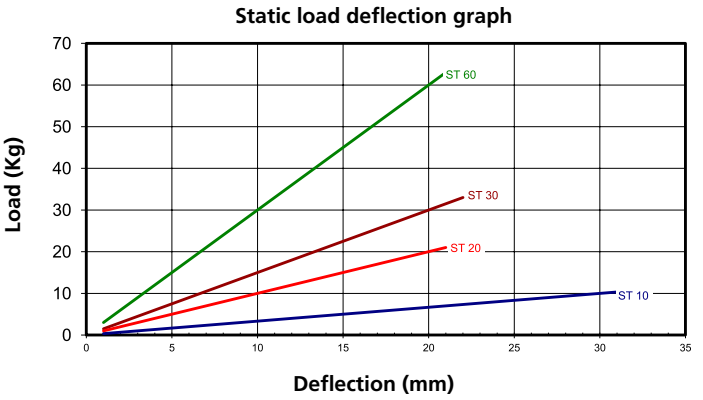
Load from 5 to 60 kg.

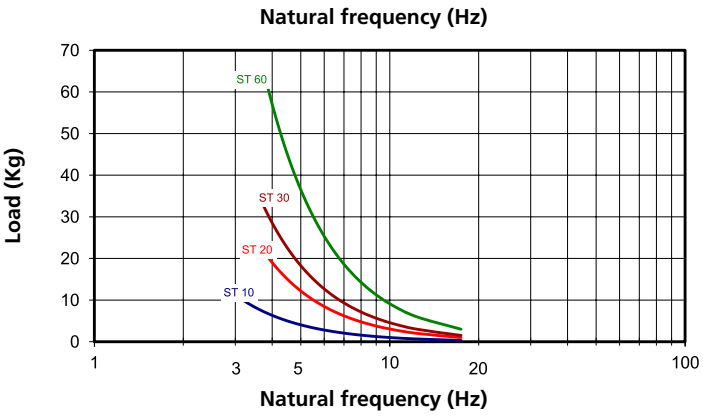


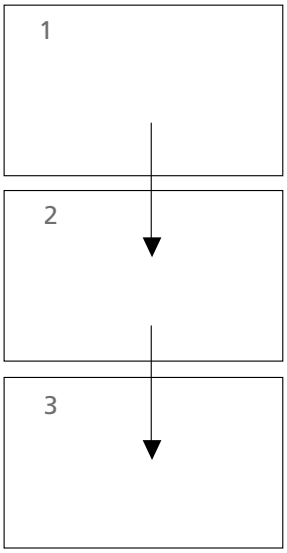
Range designed for suspensions of false acoustic ceilings and machinery working at more than 450 r.p.m. Manufactured with piano tail quality spring of great mechanical resistance guided by two rubber plates with integral end stops to prevent contact between spirals when overloading.



Dynamic behaviour



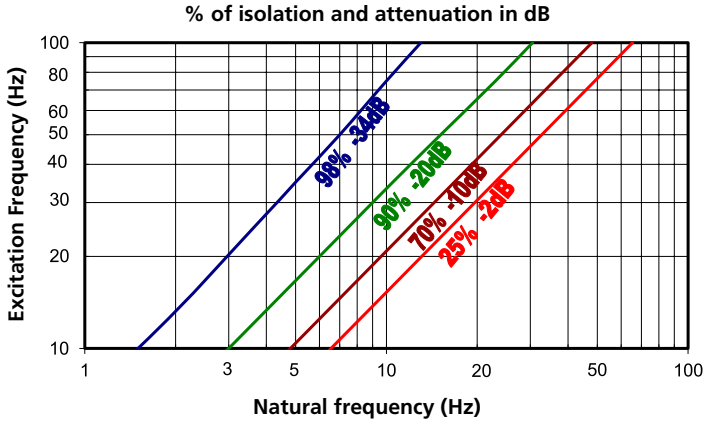




To select correct mounting, following data are needed:

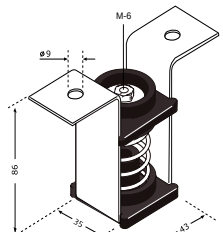
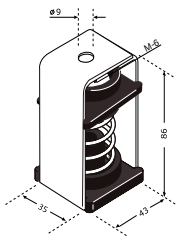
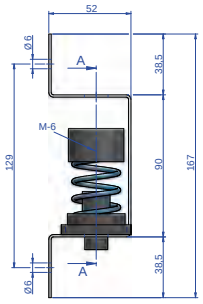
- Load per mounting (kg).
- Disturbing frequency (Hz).

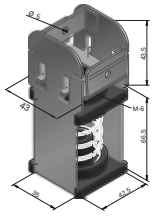
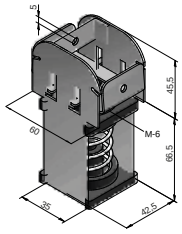
Select correct load line in diagram 1 and refer to diagram 2 to obtain the Natural frequency. With this natural frequency prolong this line to the diagram 3 and obtain the % of isolation at the given Excitation Frequency (Hz).



CEILING MOUNTS

Springtec ceiling hanger

	LOAD AMC	MAX. PERMANENT LOAD	LOAD
	Springtec ST-10 Type 1	10 Kg.	23301
	Springtec ST-20 Type 1	20 Kg.	23302
	Springtec ST-30 Type 1	30 Kg.	23303
	Springtec ST-60 Type 1	60 Kg.	23304
	Springtec ST-10 Type 2	10 Kg.	23305
	Springtec ST-20 Type 2	20 Kg.	23307
	Springtec ST-30 Type 2	30 Kg.	23309
	Springtec ST-60 Type 2	60 Kg.	23311
	Springtec ST-10 Lateral	10 Kg.	23406
	Springtec ST-20 Lateral	20 Kg.	23407
	Springtec ST-30 Lateral	30 Kg.	23408
	Springtec ST-60 Lateral	60 Kg.	23409

	LOAD AMC	MAX. PERMANENT LOAD	LOAD
	Springtec Super T-47 Type ST-10	10 Kg.	23421
	Springtec Super T-47 Type ST-20	20 Kg.	23422
	Springtec Super T-47 Type ST-30	30 Kg.	23423
	Springtec Super T-47 Type ST-60	60 Kg.	23424
	Springtec Super T-60 Type ST-10	10 Kg.	23351
	Springtec Super T-60 Type ST-20	20 Kg.	23352
	Springtec Super T-60 Type ST-30	30 Kg.	23353
	Springtec Super T-60 Type ST-60	60 Kg.	23354





CEILING MOUNTS

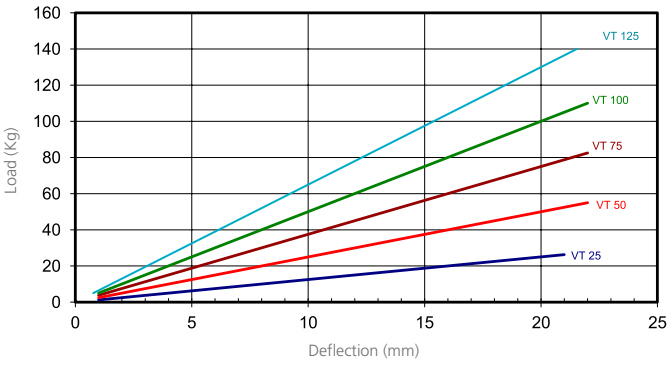
VT ceiling hanger

Load from 10 to 750 kg

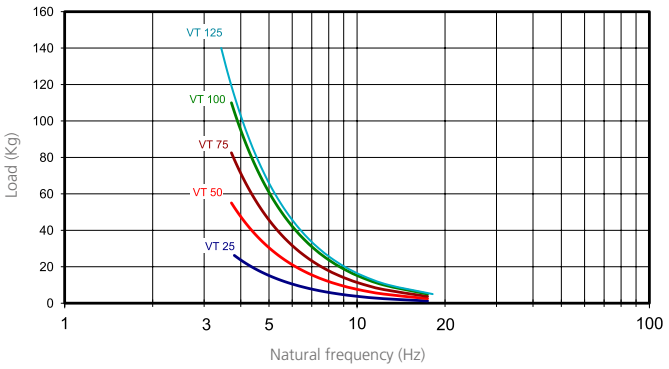
Range designed for suspension of false acoustic ceilings and machinery operating at more than 450 r.p.m. These isolators are made of piano tail spring quaiity with a high mechanical performance. They incorporase rubber bush concieved lo avoid the "acoustic bridges" and the contact of a non aligned screw. The metallic structure is very robust and it is supplied with an anti-corrosive zinc-plated coat.

Dynamic behaviour

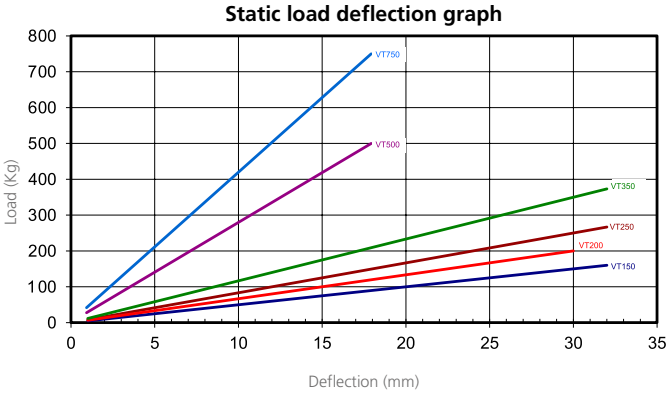
Static load deflection graph



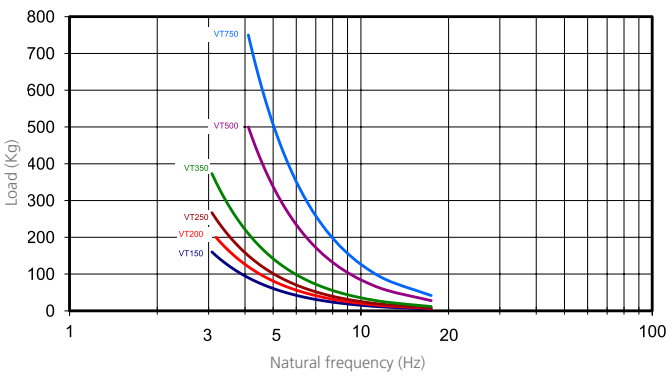
Natural frequency graph



Static load deflection graph



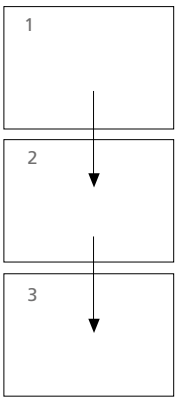
Natural frequency graph



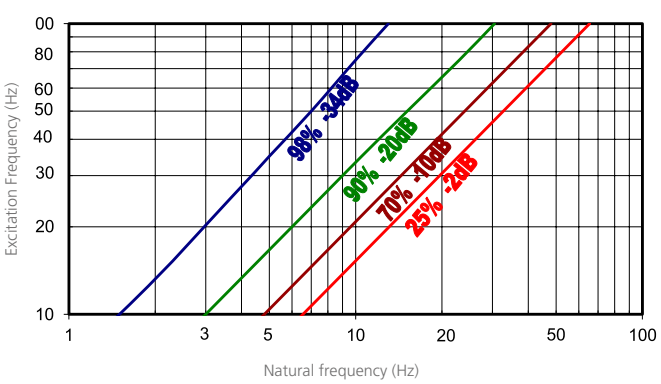
To select correct mounting, following data are needed:

- Load per mounting (kg).
- Disturbing frequency (Hz).

Select correct load line in diagram 1 and refer to diagram 2 to obtain the Natural frequency. With this natural frequency prolong this line to the diagram 3 and obtain the % of isolation at the given Excitation Frequency (Hz).



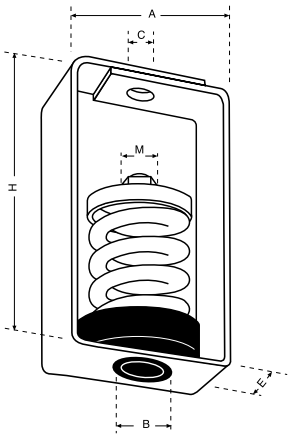
% of isolation and attenuation in dB



CEILING MOUNTS

VT ceiling hanger





REF. AMC	MAX. PERMANENT LOAD	DIMENSIONS						CODE
		A	H	B	C	E	M	
VT 25	25 Kg.	75	120	30	12	50	M-8	20201
VT 50	50 Kg.	75	120	30	12	50	M-8	20202
VT 75	75Kg.	75	120	30	12	50	M-8	20203
VT 100	100 Kg.	75	120	30	12	50	M-8	20204
VT 125	125 Kg.	75	120	30	12	50	M-8	20211
VT 150	150 Kg.	120	160	30	16	80	M-12	20205
VT 200	200 Kg.	120	160	30	16	80	M-12	20210
VT 250	250 Kg.	120	160	30	16	80	M-12	20206
VT 350	350 Kg.	120	160	30	16	80	M-12	20207
VT 500	500 Kg.	140	180	30	18	100	M-14	20208
VT 750	750 Kg.	140	180	30	18	100	M-14	20209







CEILING MOUNTS

Spring Rubber® ceiling hanger

Load from 8 to 100 kg.

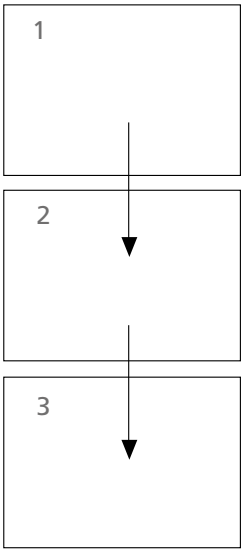
This is a new range of anti-vibration mounts, combinding the high deflection of the spring with the dampening properties of the rubber. The metallic structure is very robust and it is supplied with an anticorrosive zinc-plated coat.



To select correct mounting, following data are needed:

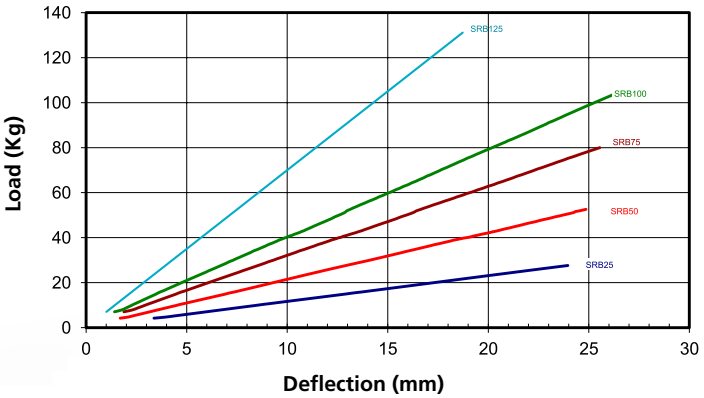
- Load per mounting (kg).
- Disturbing frequency (Hz).

Select correct load line in diagram 1 and refer to diagram 2 to obtain the Natural frequency. With this natural frequency prolong this line to the diagram 3 and obtain the % of isolation at the given Excitation Frequency (Hz).

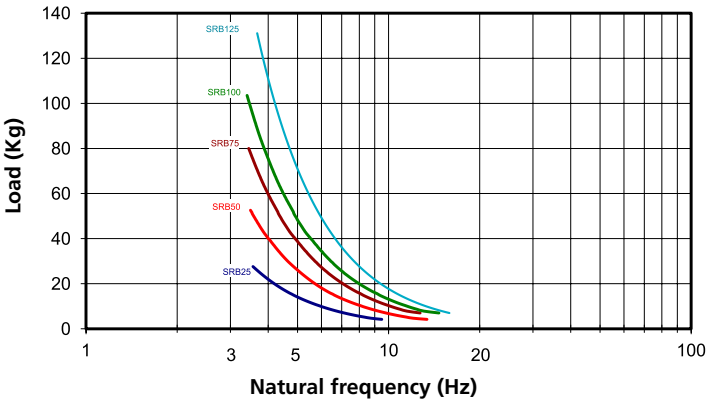


Dynamic behaviour

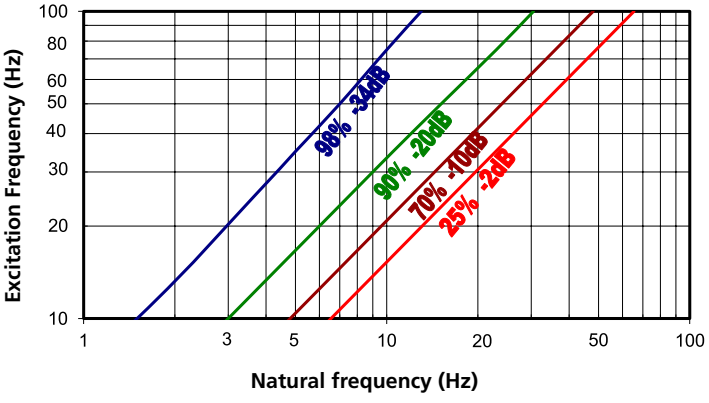
Static load deflection graph



Natural frequency graph

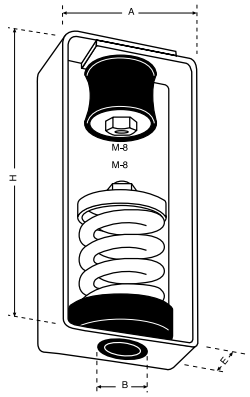


% of isolation and attenuation in dB



CEILING MOUNTS

Spring Rubber® ceiling hanger

	REF. AMC	MAX. PERMANENT LOAD	DIMENSIONS					CODE
			A	H	B	C	E	
	SRB-25	25 Kg	75	150	30	12	50	23401
	SRB-50	50 Kg	75	150	30	12	50	23402
	SRB-75	75 Kg	75	150	30	12	50	23403
	SRB-100	100 Kg	75	150	30	12	50	23404
	SRB-125	125 Kg	75	150	30	12	50	23405







WALL MOUNTS

EP wall mount

The EP wall mounts are manufactured in multiple formats to suit the different installation techniques. They are specially interesting for the fixation of walls exceeding 3.5m height. The EP mounts should be installed 1.5 meters in height. Example: Wall of 4.5 metres, the EP mounts should be installed at 1.5 and 3.

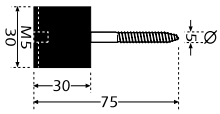
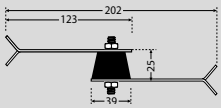
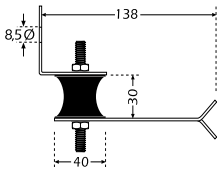
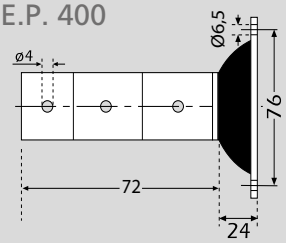
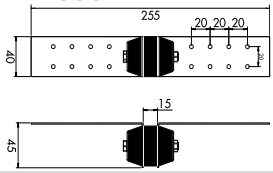
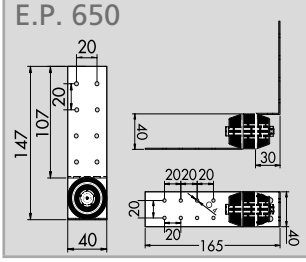


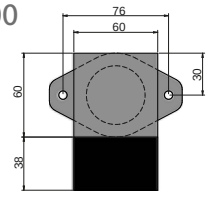








REF. AMC		SUMMARY	CODE
E.P. 100		Mount designed for vibration damping of walls, equipped with long ring-attached screws for threading onto wooden or plastified walls. Maximum load per acoustic element 10 kg.	24001
E.P. 200	 	Mount designed for vibration damping of walls, equipped with flanges for fitting onto concrete. Maximum load per acoustic element 10 kg.	24002
E.P. 300	 	Mount designed for vibration damping of walls, equipped with flange and angle for fitting onto concrete and threaded. Maximum load per acoustic element 10 kg.	24003
E.P. 400	 	This mount is designed to be screwed to the profile, with the possibility of choosing different distances thanks to its 3 holes. The anchoring in to the wall is made by 2 fixing flanges.	24004
E.P. 600	 	This mount is conceived to be fixed between two elements through two metal parts with “pre-drilled holes”. The metal parts are easy to cut in order to adapt better to each work.	24008
E.P. 650	 	This mount is conceived to be fixed between two elements through two metal parts with “pre-drilled holes”. The metal parts are easy to cut in order to adapt better to each work. Following this idea we can realise a great amount of variants in order to adapt better to each work. Please enquire us if you need a more adapted system for your work.	24009

REF. AMC		SUMMARY	LOAD MÁX. (Kg.)	CODE
E.P. 500	 	This mount is designed to offer an elastic base of the plasterboard plates.	150	23156

BF Floating floor mounts

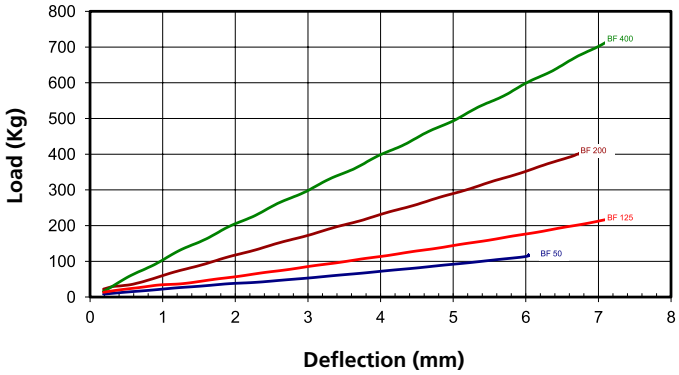
Load from 50 to 400 kg

A range designed for use in floating floors or machinery working at more than 700 r.p.m. Manufactured in rubber SMR 5CV type with excellent mechanical insulation qualities. We are able to manufacture them in different diameters and heights.

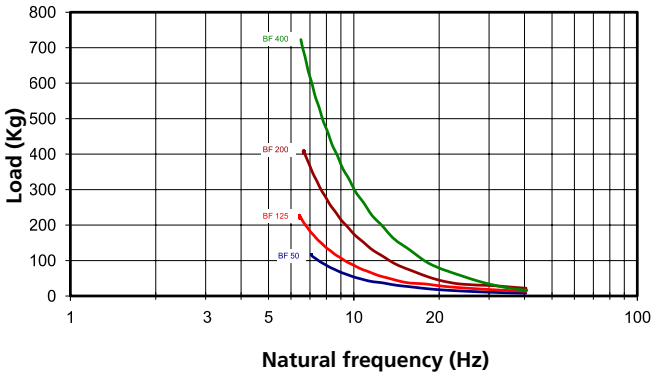


Dynamic behaviour

Static load deflection graph



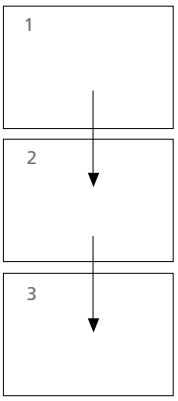
Natural frequency graph



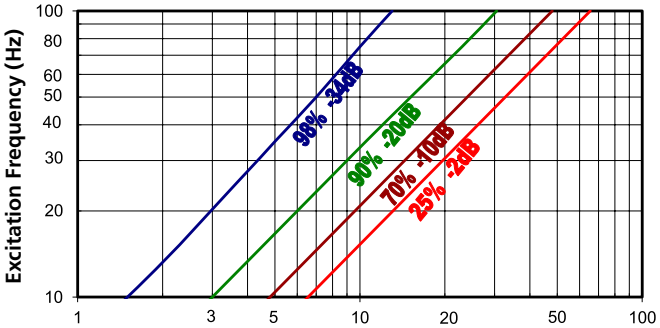
To select correct mounting, following data are needed:

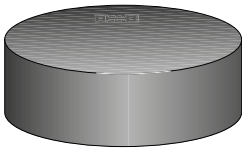
- Load per mounting (kg).
- Disturbing frequency (Hz).

Select correct load line in diagram 1 and refer to diagram 2 to obtain the Natural frequency. With this natural frequency prolong this line to the diagram 3 and obtain the % of isolation at the given Excitation Frequency (Hz).



% of isolation and attenuation in dB



	REF. AMC	MAX. PERMANENT LOAD	Ø	Height	CODE
	BF 50	50 Kg.	40	28	24201
	BF 125	125 Kg.	60	36	24202
	BF 200	200 Kg.	80	40	24203
	BF 400	400 Kg.	95	40	24204

FLOATING FLOOR MOUNTS

G Floating floor mounts

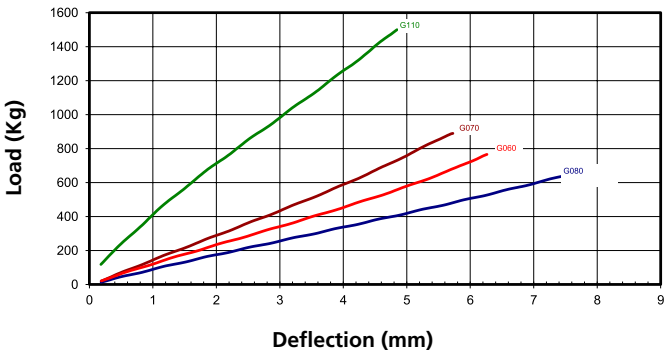
Load from 300 to 800 kg

A range of rectangular mounts ideal for those instalations that do not need anchoring or fixation.

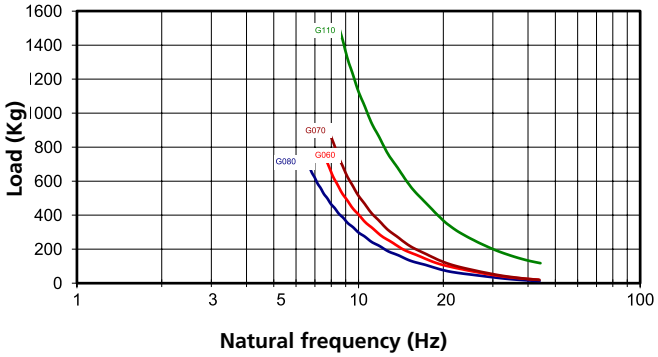


Dynamic behaviour

Static load deflection graph



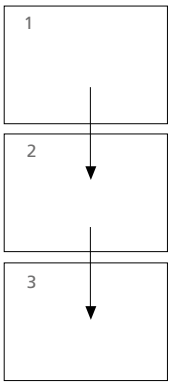
Natural frequency graph



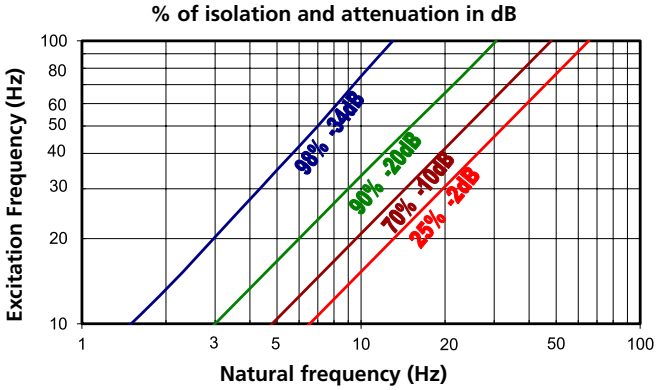
To select correct mounting, following data are needed:

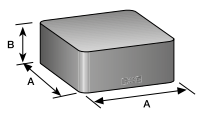
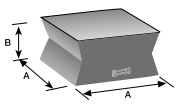
- Load per mounting (kg).
- Disturbing frequency (Hz).

Select correct load line in diagram 1 and refer to diagram 2 to obtain the Natural frequency. With this natural frequency prolong this line to the diagram 3 and obtain the % of isolation at the given Excitation Frequency (Hz).



% of isolation and attenuation in dB



	REF. AMC	A (mm.)	B (mm.)	LOAD MIN (Kg.)	LOAD MAX (Kg.)	CODE
	G-060	70	30	180	300	152005
	G-070	80	30	350	600	152006
	G-090	100	40	200	500	152008
	G-110	110	30	1600	3000	152009
	G-080	80	50	200	500	152007

TABIABSORBER

Delivery format: 1x1.25 meter layers

EFFECTIVENESS: Manufactured from CR (NEOPRENE®) particles and then compressed, the tabiabsorber can be furnished in two different versions depending on its use.

VERSATILITY: The TABIABSORBER can be furnished in two different versions depending on its use.

TABIABSORBER 5: Shock absorber and noise isolator.

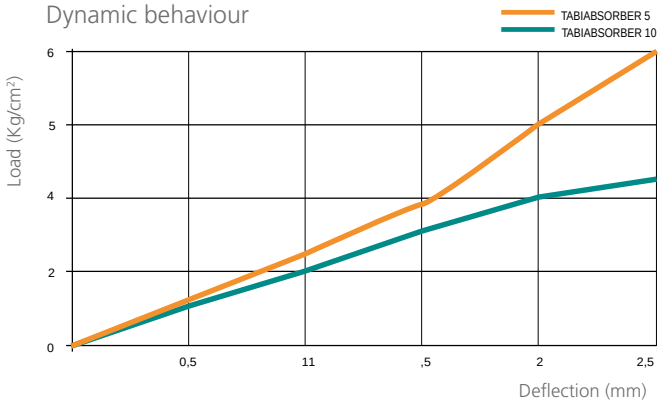
TABIABSORBER 10: Vibratory insulation.

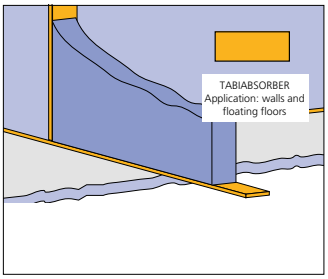
We offer the cutting service upon requested dimensions.

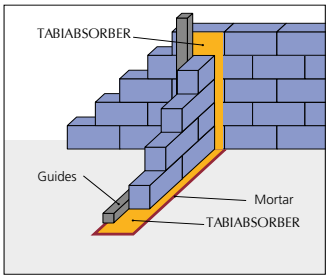
EASY TO INSTALL: Due to its exterior texture, the adherence to plaster, glue, concrete etc it is easily done thanks to its waterproofing.

	REF. AMC	CODE
	Tabiabsorber 5	30105
	Tabiabsorber 10	30110
	Tabiabsorber Curl 8/4	30106
	Tabiabsorber Curl 17/8.	30107

Dynamic behaviour







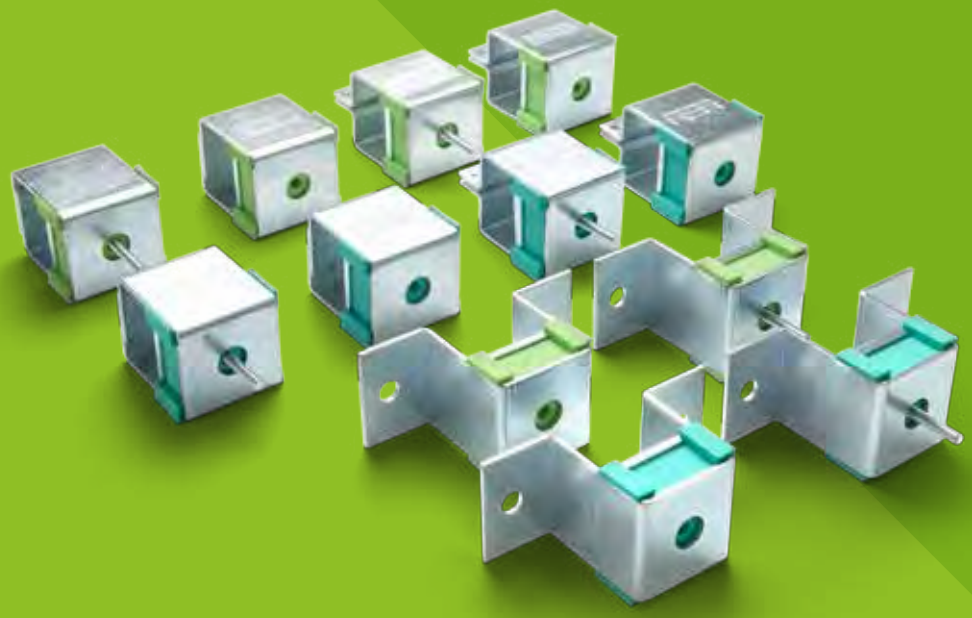
The Tabiabsorber can be cutted in bands

	TABIABSORBER 5 CODE 30105	TABIABSORBER 10 CODE 30110	TABIABSORBER CURL 8/4 CODE 30106	TABIABSORBER CURL 17/8. CODE 30107	NORM
SIZES (m)	1x1,25	1x1,25	8x1,25	8x1,25	
THICKNESS (mm)	5 mm	10 mm	8/4 (8 minimum + 4 on the curl zone)	17/8 (17 minimum + 8 on the curl zone)	
DENSITY (Kg/m³)	917	917	680-750	500-600	
WEIGHT/m² (kg)	4.1	8.5	3,87-4,73		
TENSILE STRENGTH (N/mm²)	7	7,5	0,4	0,3	DIN EN ISO 1798
TEAR STRENGTH (%)	65	70	50	40	DIN EN ISO 1798
STRESS AT 25% COMPRESSION (N/mm²)	0.6	0.8	0,1	0,05	DIN EN ISO 3386-2
WATERPROOFING, K VALUE. (cm/s)	-	0.03			18035/6
MAX. TEMPERATURE (C°)	-40 a 115	-40 a 115	-30 a 80	-30 a 80	
FIRE RESISTANCE	Class B2/E	Class B2/E	Class B2/E	Class B2/E	4102 / ISO 13501
STRUCTURE NOISE IMPROVEMENT (DB)			22	28	

Akustik+ sylomer®

by getzner

When 2 dB at low frequencies make the difference



COMPARATIVE TESTS AT THE LABEIN TECHNOLOGY CENTRE

COMPARATIVE RESULTS OF THE TEST BETWEEN A SUSPENDED CEILING WITH AND WITHOUT AKUSTIK+SYLOMER®.

Graphic 1 shows the isolation provided by a single plasterboard suspended with Akustik + Sylomer® suspensions and the same ceiling fitted with M6 rod. The blue line represents the isolation achieved with Akustik + Sylomer® mounts.

As can be seen, there are major differences at low and high frequencies, offering a difference of:

- 3 dB at 125 Hz
- 6 dB at 250 Hz
- 5 dB at 500 Hz
- 5 dB at 1000Hz

At the same time, comparative tests were conducted with ceilings with a greater number of plasterboards. Table 1 shows the results of the RW reduction index:

It is clear that the use of Akustik+Sylomer® suspensions provides far greater airborne isolations, which in some cases are equivalent to or greater than the use of 2 or 3 plasterboards with anti-vibration ceiling mounts.

The results and descriptive reports can be downloaded free from www.akustik.com

Akustik isolation curves

Graphic 1

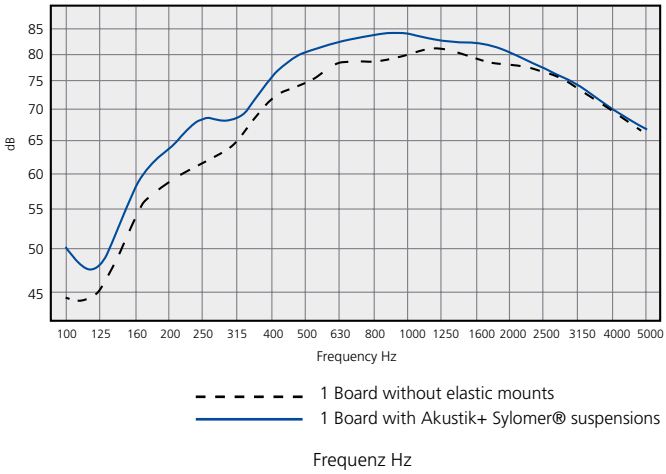
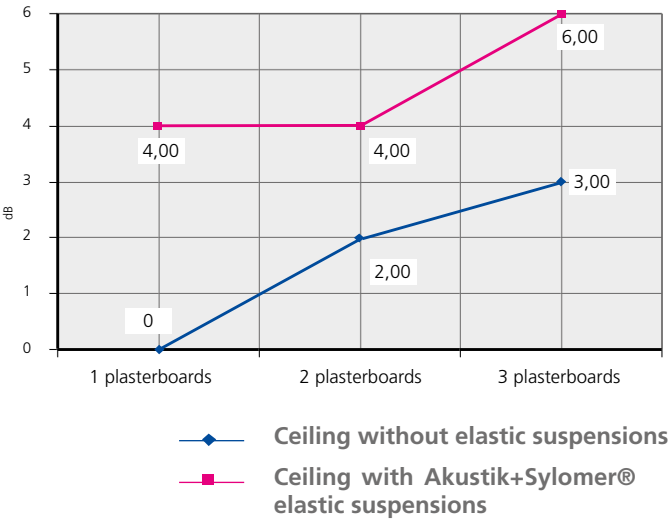


Table 1

RW (C; Ctr) sound isolation index	Without suspensions (M6 rod)	With suspensions Akustik+sylomer®
1 plasterboard	71 (-4; -10) dB	75 (-4; -10) dB
2 plasterboard	73 (-3; -9) dB	75 (-3; -8) dB
3 plasterboard	74 (-3; -8) dB	77 (-3; -8) dB

Gain in dB thanks to the use of the Akustik+Sylomer® suspensions as opposed to a ceiling without elastic suspensions.



COMPARATIVE TESTS AT THE LABEIN TECHNOLOGY CENTRE

COMPARATIVE RESULTS OF THE TEST BETWEEN A SUSPENDED CEILING WITH AKUSTIK+SYLOMER VS RUBBER SUSPENSIONS.

Table 2 compares the RA sound isolation index according to the number of plasterboards.

The improvement is self-evident, the akustik+sylomer® mounts offer a superior isolation to the rubber mounts. This difference is so great that it may be said that a ceiling with a plasterboard withakustik+sylomer® offers the same isolation as a ceiling with two plasterboard rubber suspensions. This therefore means savings in time and material.

The savings in plasterboard and labour costs make these mounts particularly interesting. both technically and economically.

In order to provide a better analysis of the differences between the rubber mounts and the akustik+sylomer® mounts. table 3 shows the isolation data at different frequencies.

The results of these tables show that the isolation differences are in the low frequency range. which is particularly interesting for the isolation of premises without soundproofing. since they are particularly difficult to isolate.

Table 2

RW sound isolation index	Akustik + sylomer®	RUBBER
1 plasterboard	75 (-4; -10) dB	74 (-3; -9) dB
2 plasterboard	75 (-3; -8) dB	75 dB (-4; -10) dB
3 plasterboard	77 (-3; -8) dB	76 (-4; -10) dB

Table 3

Suspended ceiling with 1 plasterboard		
FREQUENCY	Akustik + sylomer®	RUBBER
160 Hz.	58,3 dB	57,5 dB
250 Hz.	68,4 dB	66 dB
500 Hz.	80,3 dB	79,1 dB

False ceiling with 2 plasterboards		
FREQUENCY	Akustik + sylomer®	RUBBER
160 Hz.	57 dB	56,9 dB
250 Hz.	70 dB	68 dB
500 Hz.	81,5 dB	81,1 dB

False ceiling with 3 plasterboards		
FREQUENCY	Akustik + sylomer®	RUBBER
160 Hz.	60,4 dB	58,5 dB
250 Hz.	69,4 dB	67 dB
500 Hz.	82,4 dB	81,1 dB

ADVANTAGES ON WOODEN STRUCTURES

In order to show the acoustic advantages when using Akustik+Sylomer® acoustic hangers, the German IFT Rosenheim technological center has performed Impact and airborne noise tests using 2 different types of wooden structures.

IFT ROSENHEIM

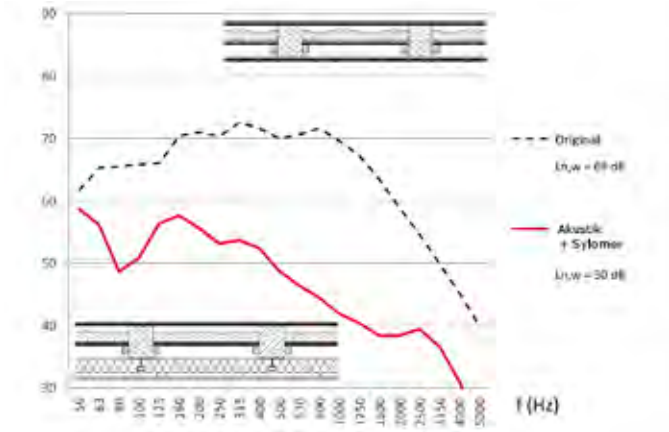
Wooden ceiling using sand as a filler: Reduction of impact noise 19dB, Gain of airborne isolation 18 dB.

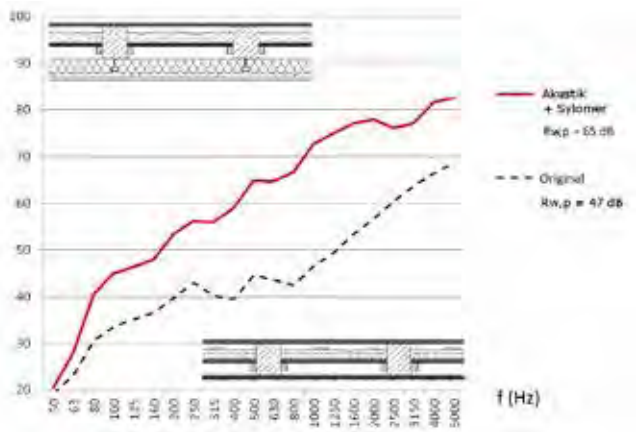
Wooden ceiling using mineral wool as a filler: Reduction of impact noise 14 dB, Gain of airborne isolation 6 dB.

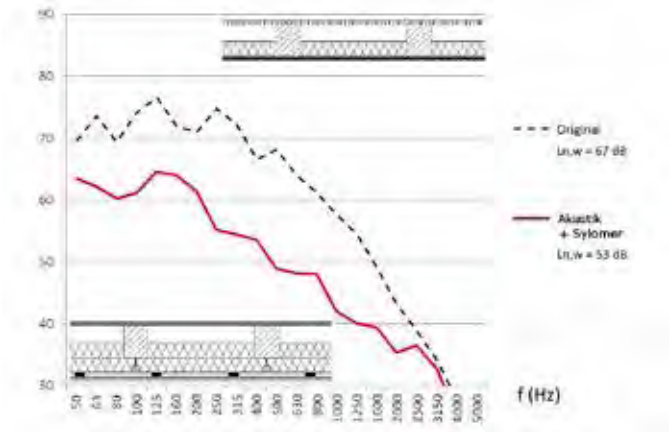
In both kinds of ceilings a comparison has been done in order to determine the acoustic advantage that provides using Akustik+Sylomer® hangers.

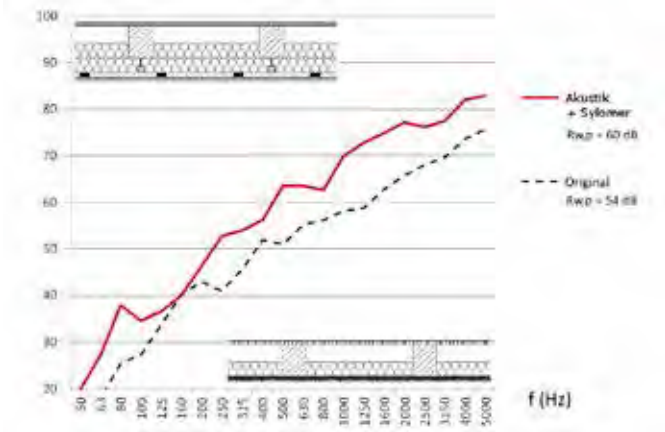


Akustik Lateral+Sylomer®: The akustik Lateral hanger is specifically suiting the structures where no space is available and the acoustic hangers have to be fixed to the wooden beam.









BEHAVIOUR AT HIGH AND LOW FREQUENCIES

Structure-borne noise is transmitted through the structures of a building, machine, installation... This radiation noise becomes airborne noise.

Low noise frequencies are those that are usually less damped in the air and are therefore better transmitted through structures. The range of low frequencies is between 20 and 500 Hz.

NATURAL FREQUENCY OF THE AKUSTIK+SYLOMER® MOUNTS

The Akustik+Sylomer® ceiling mounts can obtain very low natural frequencies of up to 7 Hz at the optimal loading point. At this loading point the decoupling frequency of the Akustik+Sylomer® mounts is 9,9Hz.

Such a low natural frequency is optimal for the false ceilings of soundproofed premises. This type of suspensions are also particularly interesting for the isolation of machines or vibrating elements that work at more than 600 rpm. Examples are:

- Ducts / pipelines:
- Of cooling liquids from refrigerating compressors, and are ideal for use in supermarkets, the frozen food section.
- Air conditioning.
- Pumping of water
- From fume exhausts.
- Suspension of air conditioning machinery.
- Suspension of vibrating elements in general.

BEHAVIOUR OF THE AKUSTIK+SYLOMER® MOUNTS AT LOW FREQUENCIES IN SOUNDPROOFED PREMISES.

The range of audible frequencies in the human being may vary according to age and to other factors although in general it is between 20 Hz and 20.000Hz. By way of example the notes produced by a guitar have a frequency range from 82 to 698 Hz.

Considering that the most unfavourable excitation frequency, i.e. 20 Hz, the isolation degree of structure-borne noise produced by an Akustik+Sylomer® suspension would be close to 90%. (*)

(*) Installation of the optimal loading point of the Akustik+Sylomer® for a theoretical single mass spring system.

BEHAVIOUR OF THE AKUSTIK+SYLOMER® MOUNTS AT MEDIUM AND HIGH FREQUENCIES.

Sound waves are not comprised of just one frequency, but rather of a set of frequencies superimposed without any order, which is the main reason why noise is unpleasant. Thus, the ideal suspender must be able to isolate the broadest possible range of frequencies.

Behaviour of a metal spring

These suspenders are often recommended for the elastic suspension of false ceilings. It is important to know that this type of mount is suitable for the damping of low frequencies, whereas the high frequencies are propagated through the coils of the spring. To filter this type of frequencies the springs must be combined with a stage of viscoelastic material under the spring to stop the propagation of this type of vibration.

BEHAVIOUR OF THE AKUSTIK+ SYLOMER®

Thanks to the viscoelastic properties of the Sylomer, the akustik+Sylomer has a behaviour similar to the spring at low frequencies and at the same time not only prevents the high frequencies as occurs in the spring via its coils, but also considerably improves the behaviour of the rubber at high frequencies. These results are shown in the comparative section of Akustik+Sylomer® with regard to rubber suspenders.

CREEPING AND LONG-TERM BEHAVIOUR

Static loads produce a certain degree of creeping. This phenomenon can be observed in all elastomers. Creeping is the increase in deformation under consistent loading Figs. 1 and 3 show the creeping for the two types of Sylomer® used for our ceiling mounts.

Within the field recommended for the application of continuous loads, the additional deflection remains under 50% of the initial deflection even after an extended period of 10 years.

The dynamic stiffness of the ceiling mounts must increase as little as possible over time. Figs. 2 and 4 show the variation of the dynamic module over time of the two types of Sylomer used in our ceiling mounts.

Sylomer® Low Loads

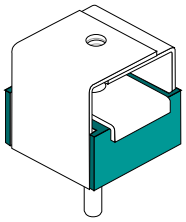


Fig.1
"Creeping" Behaviour

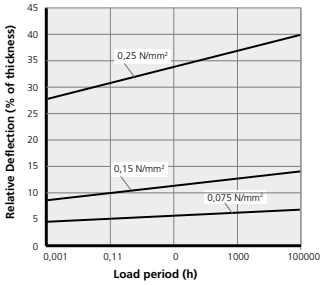
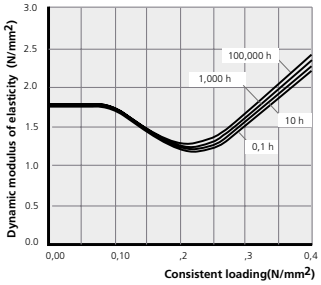


Fig. 2
Dynamic modulus of elasticity at long term loading



Sylomer® High Loads

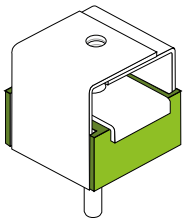


Fig.3
"Creeping" Behaviour

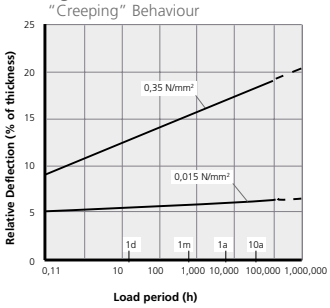
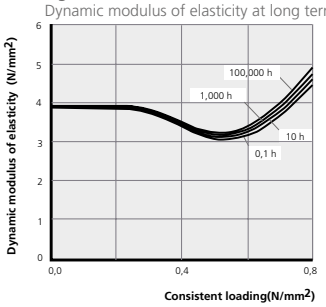


Fig. 4
Dynamic modulus of elasticity at long term loading





CEILING MOUNTS

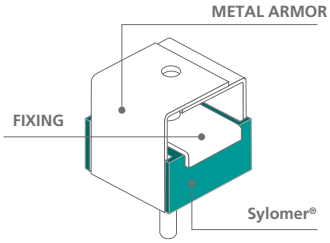
Akustik+Sylomer®: Models and dimensions

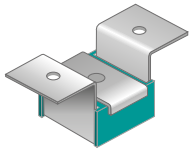
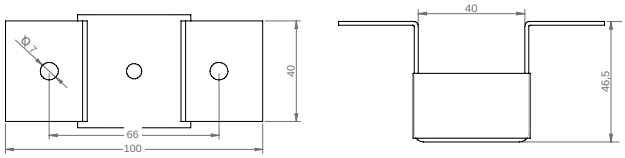
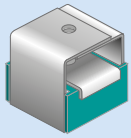
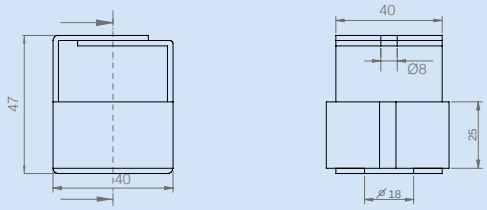
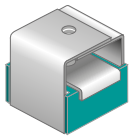
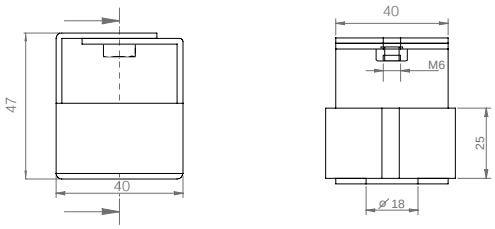
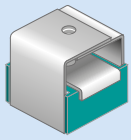
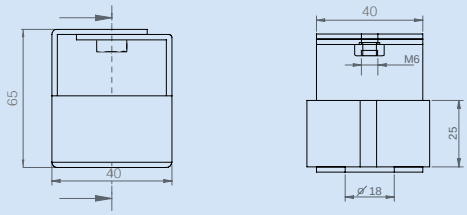
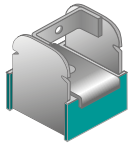
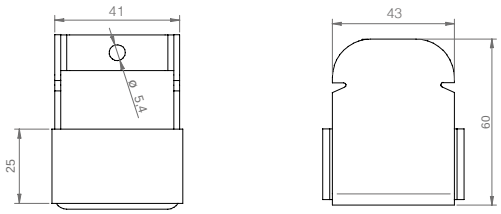
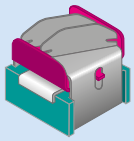
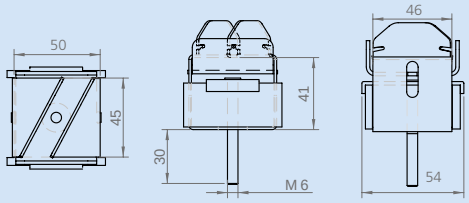
PRODUCT DESCRIPTION

These antivibration mounts have been conceived for the suspension of false ceilings, vibrating pipelines and machinery that has to be suspended.

The excellent properties of the Sylomer® microcellular polyurethane material achieve elevated isolation values as opposed to other mounts that use rubber or cork, or a combination of both. These antivibration mounts are manufactured in two special mixes of Sylomer® to adapt better to the load of each application.

A great variety of fixing metal armors and elements facilitate the installation and to adapt better to each type of job. Their rugged metal parts can withstand tensile stresses from 650Kg to 1000Kg. They are supplied with an anticorrosive treatment that can withstand the toughest environments.



	Akustik 1	It is secured directly to the ceiling by means of two holes.	
	Akustik 3	It is secured directly to the ceiling with a screw and locking nut.	
	Akustik 4	It is secured with a screw via a nut welded to the metal armor.	
	Akustik 4 High	It is secured with a screw via a nut welded to the metal armor.	
	Akustik Rapid T47	Designed to be secured to most profiles on the market. Its design makes for easy and safe installations.	
	Akustik Safety	Its gravitational system guarantees correct installation and offers greater safety, preventing elements from becoming detached.	

CEILING MOUNTS

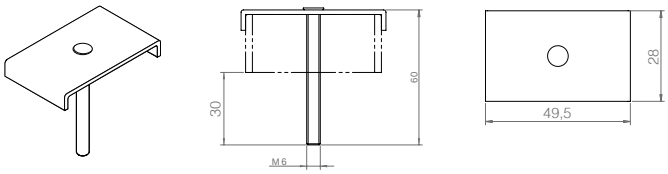
Akustik+Sylomer®:
Models and dimensions



TYPE OF FIXING

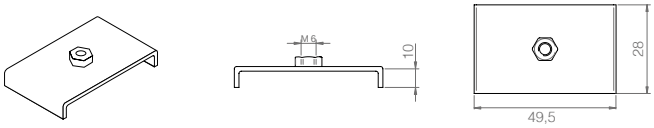
TYPE A

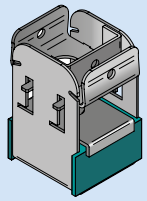
For installations where M6 male fixing is required, the recommended fixing is **Type A.**



TYPE B

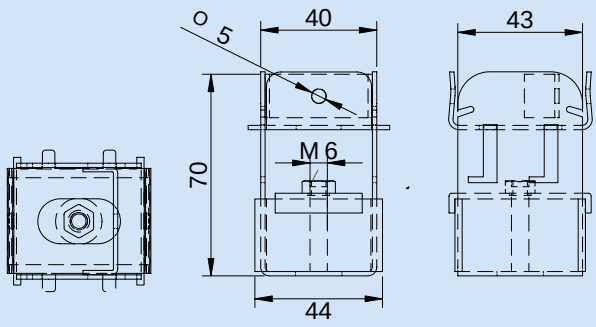
For installations where M6 female fixing is required, the recommended fixing is **Type B.**

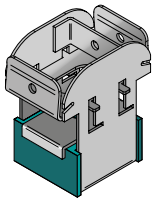




Akustik Super T47

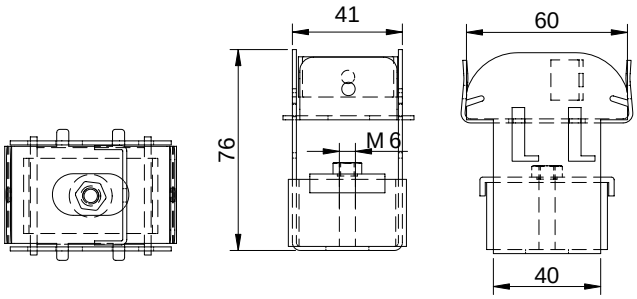
The "SUPER" security feature is adaptable to the different profiles existing on the market.



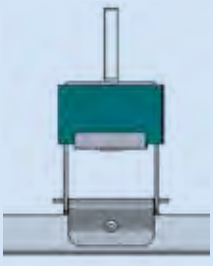


Akustik Super T60

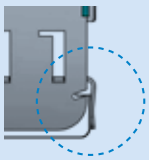
The external dimension of the profiles that exist on the market may variate, our "SUPER" security system with lip form adapts to the different lengths of the profile having a tight fit.



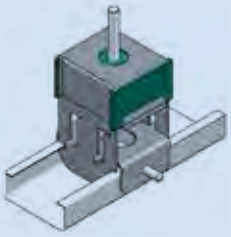
INSTALLATION STEPS OF AKUSTIK SUPER



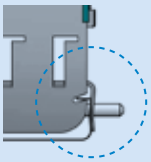
Detail A



1• The security system is adaptable to different widths of profiles.



Detail B



2• The "SUPER" security system admits the possibility of inserting a blocking screw.

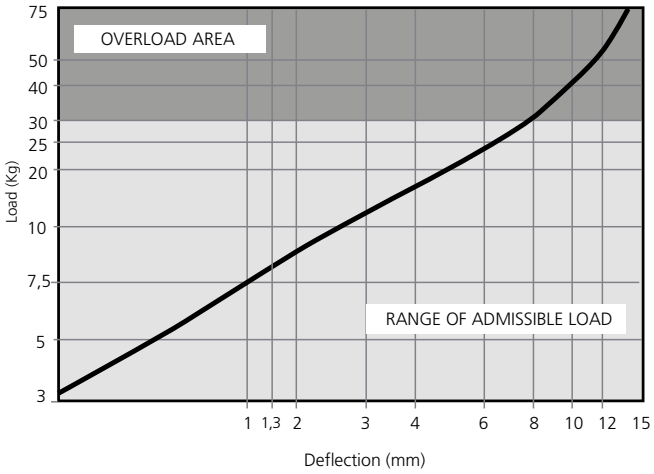


CEILING MOUNTS

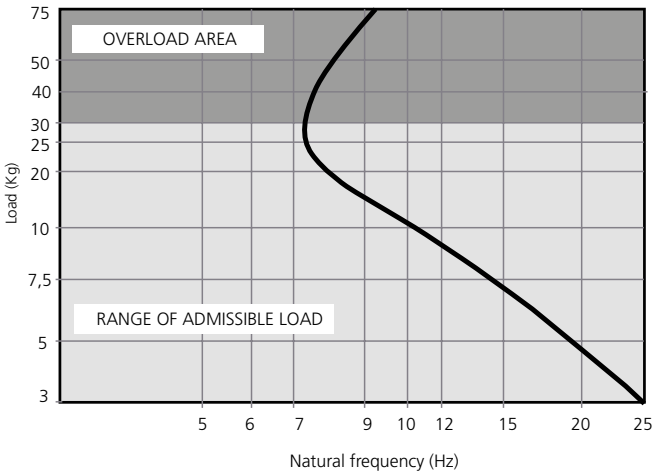
Akustik+Sylomer®: Models and dimensions

TYPES OF SYLOMER®

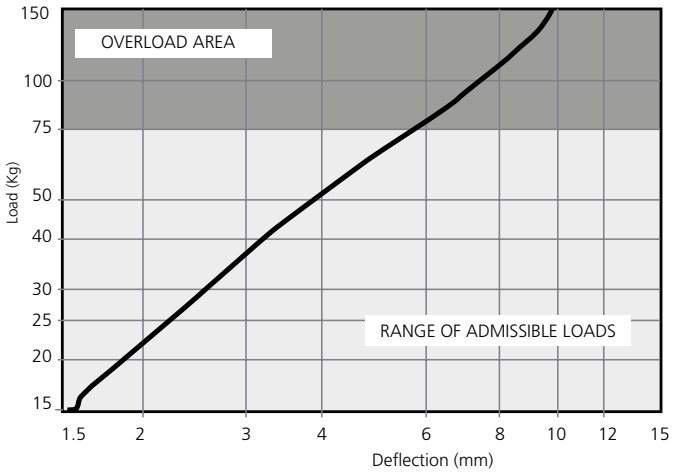
LOAD DEFLECTION GRAPH
Akustik+Sylomer® **30**



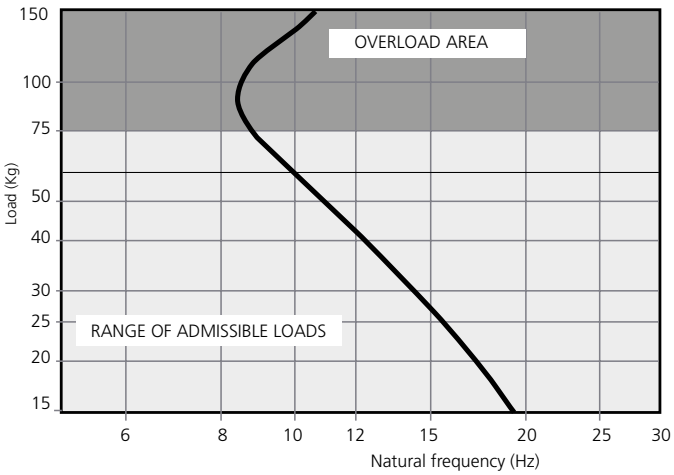
NATURAL FREQUENCY
Akustik+Sylomer® **30**



LOAD DEFLECTION GRAPH
Akustik+Sylomer® **75**



NATURAL FREQUENCY
Akustik+Sylomer® **75**



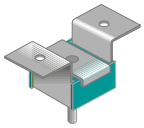
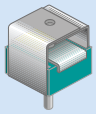
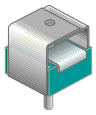
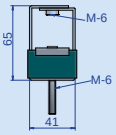
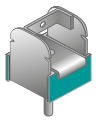
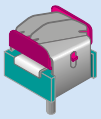
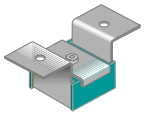
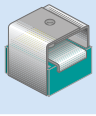
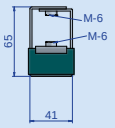
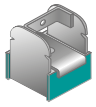


Application of an Akustik 4+Sylomer 30 type A.

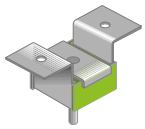
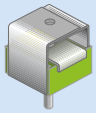
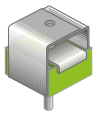
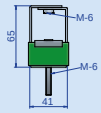
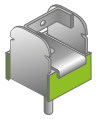
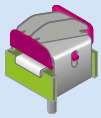
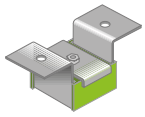
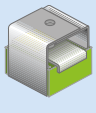
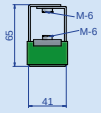


Application of an Akustik Super T60 +Sylomer 30 type B.

CEILING MOUNTS
Akustik+Sylomer® Range

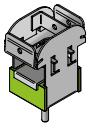
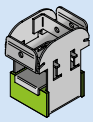
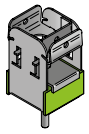
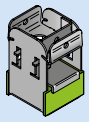
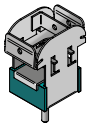
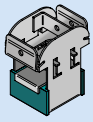
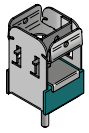
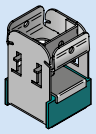
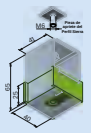
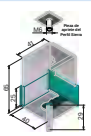
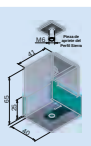
	REF AMC	SUMMARY	(Kg) MAX. LOAD	ART.NR
	Akustik 1+Sylomer® 30 Type A	Metal armor of the Akustik 1 secured to the ceiling by an M6 screw and with a nut.	30	23501
	Akustik 3+Sylomer® 30 Type A	Metal armor of the Akustik 3 secured to the ceiling by an M6 screw and with a nut.	30	23503
	Akustik4+Sylomer® 30 Type A	Metal armor of the Akustik 4 secured to the ceiling by an M6 screw and with a nut.	30	23505
	Akustik 4 High+Sylomer® 30 Typ A	Metal armor of the Akustik 4 secured to the ceiling by an M6 screw and with a nut.	30	23537
	Akustik Rapid+Sylomer® 30 Typ A	Metal armor of the Akustik rapid secured to the ceiling by an M6 screw and with a nut.	30	23507
	Akustik Safety+Sylomer® 30 Typ A	Metal armor of the Akustik Safety secured to the ceiling by an M6 screw and with a nut.	30	23508
	Akustik 1+Sylomer® 30 Typ B	Metal armor of the Akustik 3 secured to the ceiling by a welded M6 nut.	30	23509
	Akustik 3+Sylomer® 30 Typ B	Metal armor of the Akustik 4 secured to the ceiling by a welded M6 nut.	30	23511
	Akustik 4+Sylomer® 30 Typ B	Metal armor of the Akustik Rapid secured to the ceiling by a welded M6 nut.	30	23513
	Akustik 4 HIgh+Sylomer® 30 Typ B	Metal armor of the Akustik Rapid secured to the ceiling by a welded M6 nut.	30	23538
	Akustik Rapid+Sylomer® 30 Typ B	Metal armor of the Akustik Safety secured to the ceiling by an M6 screw.	30	23515
	Akustik Safety+Sylomer® 30 TypB	Metal armor of the Akustik Safety secured to the ceiling by a welded M6 nut.	30	23516

CEILING MOUNTS
Akustik+Sylomer® Range

	REF. AMC	SUMMARY	(Kg) MAX. LOAD	CODE
	Akustik 1+Sylomer® 75 Type A	Metal armor of the Akustik 1 secured to the ceiling by an M6 screw and with a nut.	75	23517
	Akustik 3+Sylomer® 75 Type A	Metal armor of the Akustik 3 secured to the ceiling by an M6 screw and with a nut.	75	23519
	Akustik 4+Sylomer® 75 Type A	Metal armor of the Akustik 4 secured to the ceiling by an M6 screw and with a nut.	75	23521
	Akustik 4 High+Sylomer® 75 Typ A	Metal armor of the Akustik 4 secured to the ceiling by an M6 screw and with a nut.	75	23540
	Akustik Rapid+Sylomer® 75 Type A	Metal armor of the Akustik rapid secured to the ceiling by an M6 screw and with a nut.	75	23523
	Akustik Safety+Sylomer® 75 Type A	Metal armor of the Akustik Safety secured to the ceiling by an M6 screw and with a nut.	75	23524
	Akustik 1+Sylomer® 75 Type B	Metal armor of the Akustik 3 secured to the ceiling by a welded M6 nut.	75	23525
	Akustik 3+Sylomer® 75 Type B	Metal armor of the Akustik 4 secured to the ceiling by a welded M6 nut.	75	23527
	Akustik 4 +Sylomer® 75 Type B	Metal armor of the Akustik Rapid secured to the ceiling by a welded M6 nut.	75	23529
	Akustik 4 HIgh+Sylomer® 75 Typ B	Metal armor of the Akustik Rapid secured to the ceiling by a welded M6 nut.	75	23539
	Akustik Rapid+Sylomer® 75 Type B	Metal armor of the Akustik Safety secured to the ceiling by an M6 screw.	75	23531
	Akustik Safety+Sylomer® 75 TypeB	Metal armor of the Akustik Safety secured to the ceiling by a welded M6 nut.	75	23533

CEILING MOUNTS

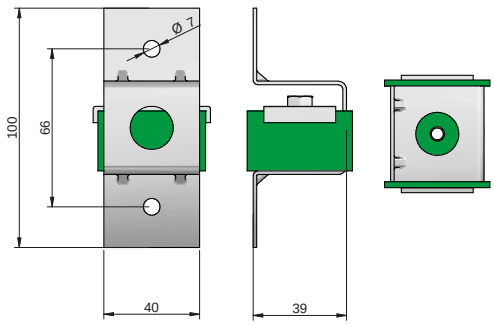
Akustik Super+Sylomer® & Akustik Saw+Sylomer® Range

	REF. AMC	SUMMARY	(KG) MAX. LOAD	CODE
	Akustik Super T60 +Sylomer® 75 Type A	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	75	23851
	Akustik Super T60 +Sylomer® 75 Type B	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	75	23852
	Akustik Super T47 +Sylomer® 75 Type A	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	75	23841
	Akustik Super T47 +Sylomer® 75 Type B	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	75	23842
	Akustik Super T60 +Sylomer® 30 Type A	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	30	23831
	Akustik Super T60 +Sylomer® 30 Type B	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	30	23832
	Akustik Super T47 +Sylomer® 30 Type A	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	30	23821
	Akustik Super T47 +Sylomer® 30 Type B	Metal armor of the Akustik Super secured to the ceiling by an M6 screw.	30	23822
	NEW Akustik Saw +Sylomer® 75 Type A	Fitted directly to ceiling using two holes.	75	23865
	NEW Akustik Saw +Sylomer® 75 Type B	Fitted directly to ceiling using two holes.	75	23866
	NEW Akustik Saw +Sylomer® 30 Type A	Fitted directly to ceiling using two holes.	30	23863
	NEW Akustik Saw +Sylomer® 30 Type B	Fitted directly to ceiling using two holes.	30	23864

CEILING MOUNTS
Akustik Lateral+Sylomer®

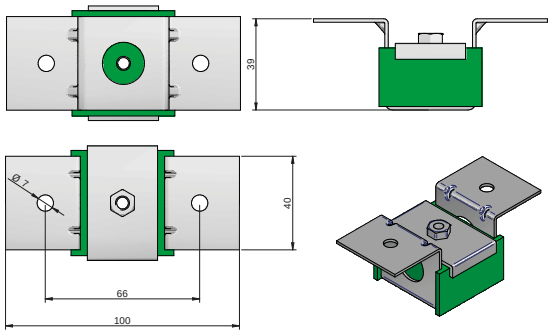
Akustik 1 Lateral+Sylomer®

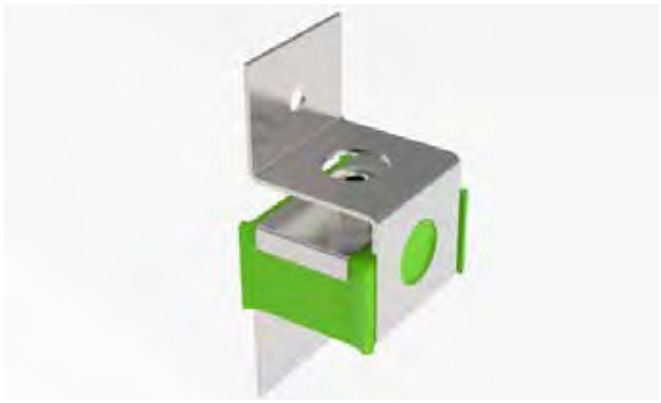
NEW

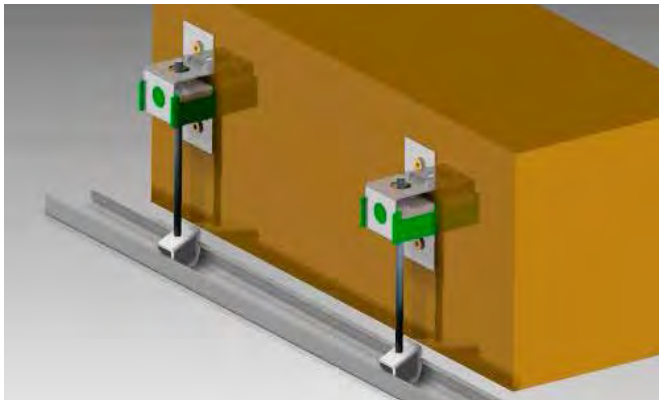


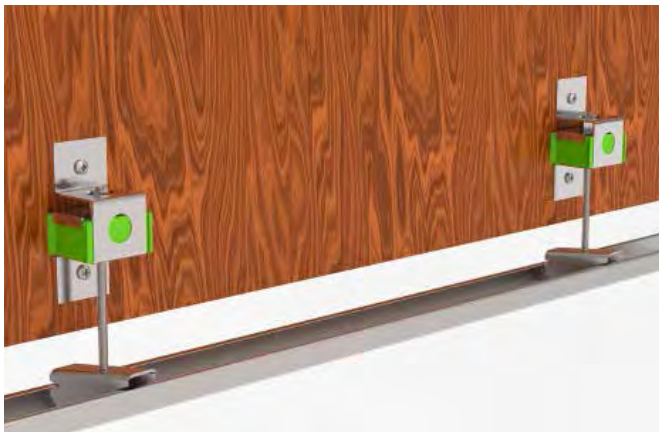
Akustik 1 Lateral+Sylomer® (Standard position)

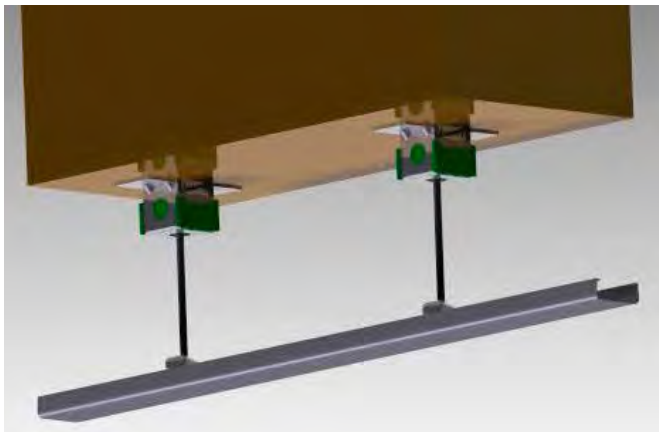
NEW



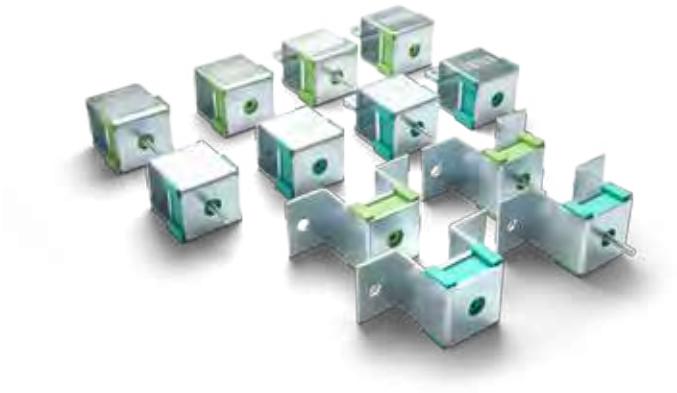








REF. AMC	(Kg) max. load	CODE
Akustik 1 Lateral+Sylomer® 30 Type A	30	23573
Akustik 1 Lateral+Sylomer® 75 Type A	75	23574
Akustik 1 Lateral+Sylomer® 30 Type B	30	23510
Akustik 1 Lateral+Sylomer® 75 Type B	75	23526



CEILING MOUNTS

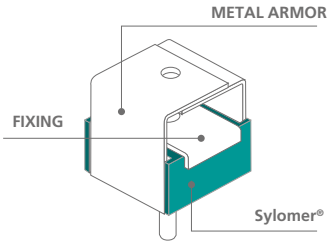
Grand Akustik+Sylomer®: Models and dimensions

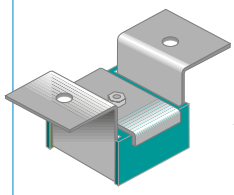
PRODUCT DESCRIPTION

These antivibration mounts have been conceived for the suspension of false ceilings, vibrating pipelines and machinery that has to be suspended.

The excellent properties of the Sylomer® microcellular polyurethane material achieve elevated isolation values as opposed to other mounts that use rubber or cork, or a combination of both. These antivibration mounts are manufactured in two special mixes of Sylomer® to adapt better to the load of each application.

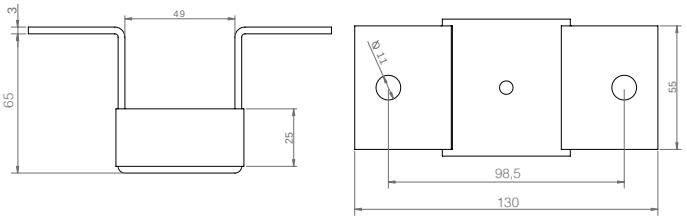
A great variety of fixing metal armors and elements facilitate the installation and to adapt better to each type of job. Their rugged metal parts can withstand tensile stresses from 650Kg to 1000Kg. They are supplied with an anticorrosive treatment that can withstand the toughest environments.

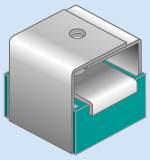




Grand Akustik 1

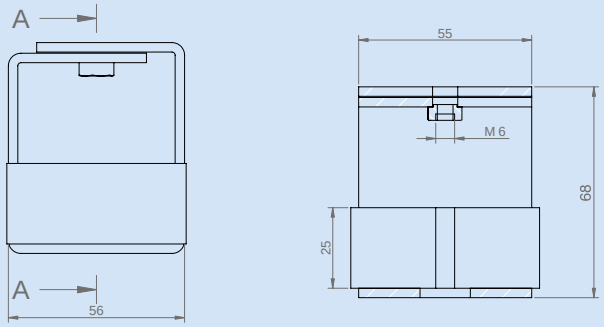
It is secured to the ceiling with two holes.

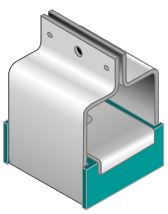




Grand Akustik 2

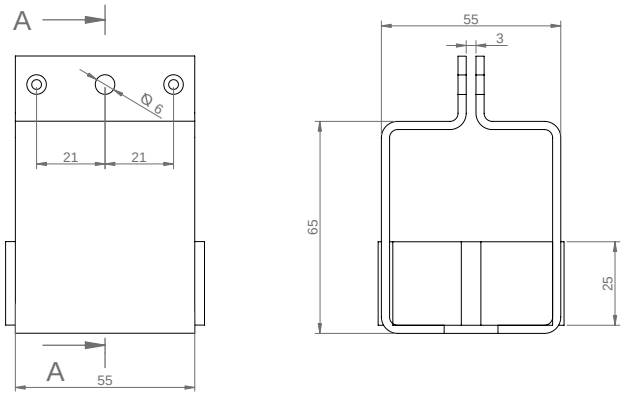
It is secured directly to the ceiling by means of a screw.





Grand Akustik 3

It is secured directly to the ceiling by means of one screw and to the "inverted double T" type profile thanks to the design of its metal armor.

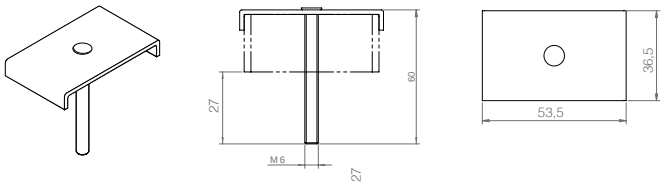


CEILING MOUNTS
Grand Akustik+Sylomer®:
Models and dimensions

TYPE OF FIXING

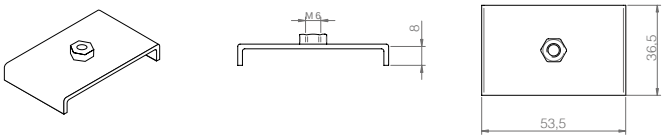
Type A

For installations where M6 male fixing is required, the recommended fixing is **Type A**.



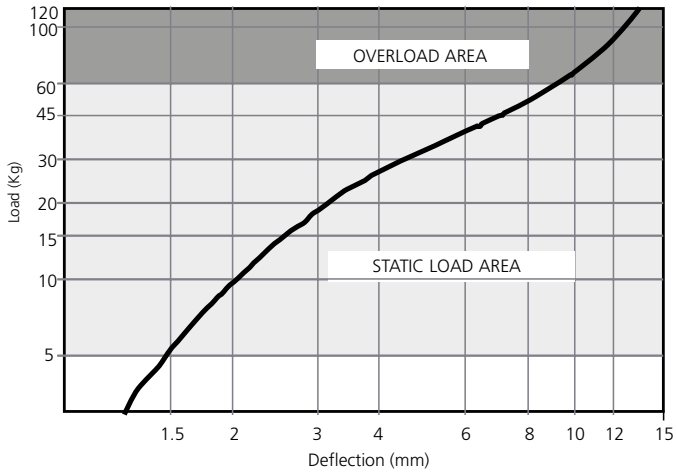
Type B

For installations where M6 female fixing is required, the recommended fixing is **Type B.**

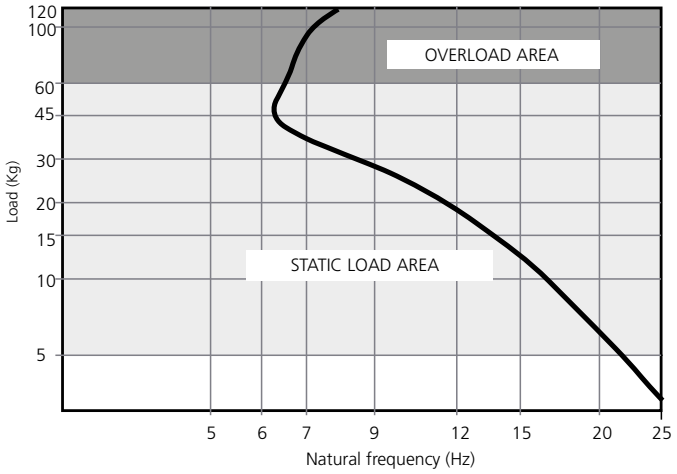


TYPES OF SYLOMER

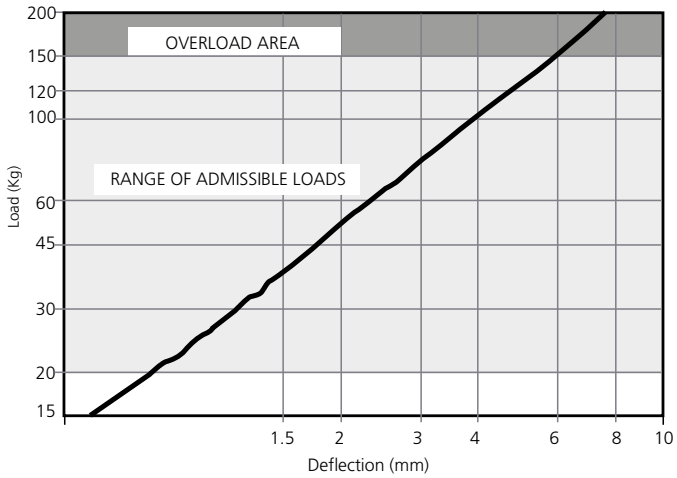
LOAD DEFLECTION GRAPH
Grand Akustik+Sylomer® 60



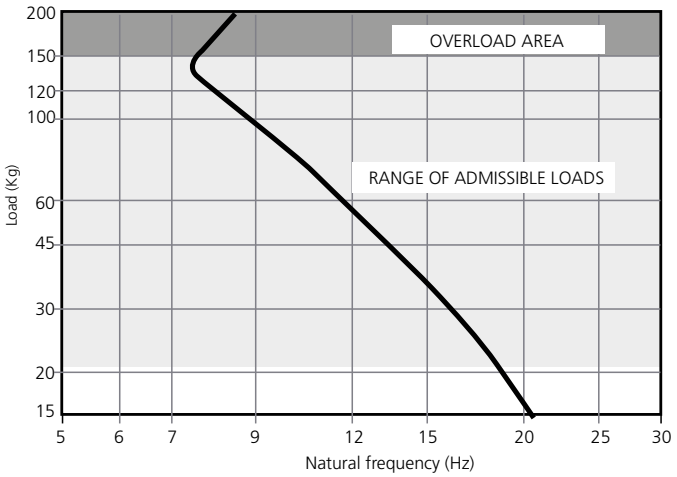
NATURAL FREQUENCY GRAPHS
Grand Akustik+Sylomer® 60



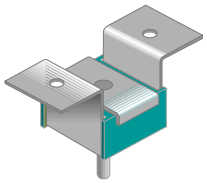
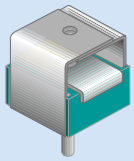
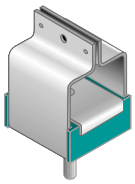
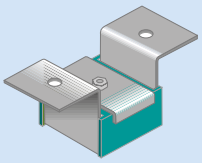
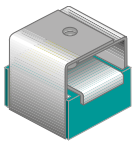
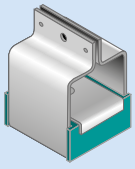
LOAD DEFLECTION GRAPH
Grand Akustik+Sylomer® 150



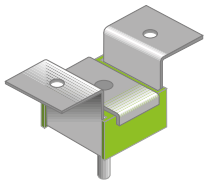
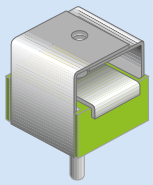
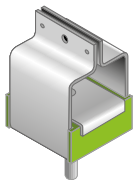
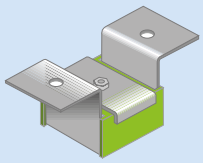
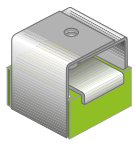
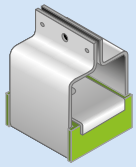
NATURAL FREQUENCY GRAPHS
Grand Akustik+Sylomer® 150



CEILING MOUNTS
Grand Akustik+Sylomer® Range

	REF. AMC	SUMMARY	(Kg) MAX. LOAD	CODE
	Grand Akustik 1+Sylomer® 60 Type A	It is secured directly to the ceiling by means of two holes and to the profile by means of a "type A" screw.	60	23601
	Grand Akustik 2+Sylomer® 60 Type A	It is secured directly to the ceiling by means of one screw and to the profile by means of a "type A" screw.	60	23605
	Grand Akustik3+Sylomer® 60 Type A	It is secured directly to the ceiling by means of one screw and to the "inverted double T" type profile thanks to the design of its metal armor.	60	23607
	Grand Akustik 1+Sylomer® 60 Type B	It is secured to the ceiling with two holes and to the profile by means of a "type B" female fixing.	60	23609
	Grand Akustik 2+Sylomer® 60 Type B	It is secured to the ceiling by a screw and to the profile by a "type B" female fixing.	60	23613
	Grand Akustik 3+Sylomer® 60 Type B	It is secured directly to the ceiling by means of a "Type B" female fixing and to the "inverted double T" type profile thanks to the design of its metal armor.	60	23615

CEILING MOUNTS
Grand Akustik+Sylomer® Range

	REF. AMC	SUMMARY	(Kg) MAX. LOAD	CODE
	Grand Akustik 1+Sylomer® 150 Type A	It is secured directly to the ceiling with two holes and to the profile by means of a "type A" male screw.	150	23617
	Grand Akustik 2+Sylomer® 150 Type A	It is secured directly to the ceiling with one screw and to the profile by means of a "type A" screw.	150	23621
	Grand Akustik3+Sylomer® 150 Type A	It is secured directly to the ceiling by means of one screw and to the "inverted double T" type profile thanks to the design of its metal armor.	150	23623
	Grand Akustik 1+Sylomer® 150 Type B	It is secured directly to the ceiling by means of two screws and to the profile by means of a "type B" female fixing.	150	23625
	Grand Akustik 2+Sylomer® 150 Type B	It is secured directly to the ceiling by means of one screw and to the profile by means of a "type B" female fixing.	150	23629
	Grand Akustik 3+Sylomer® 150 Type B	It is secured directly to the ceiling by means of one "type B" female screw and to the "inverted double T" type profile thanks to the design of its metal armor.	150	23631

CEILING MOUNTS

Installation steps (Free technical support available upon request.)

1.- Fix threaded wall plugs to the ceiling.



2.- Screw studbolts into the treaded wall plugs.



3.- Attach the acoustic hangers to the end of the studbolt.



4.- Level the hangers using a laser alignement tool.



5.- Fix the profiles to the acoustic hangers.



6.- Profiles fixed in position.



7.- Lower the safety flanges into position.



8.- Install supplementary fixings (optional) to provide additional safety feature.



9.- Acoustic hangers an profiles fixed.



10.- Place transverse profiles in position.



11.- Fix transverse profiles.



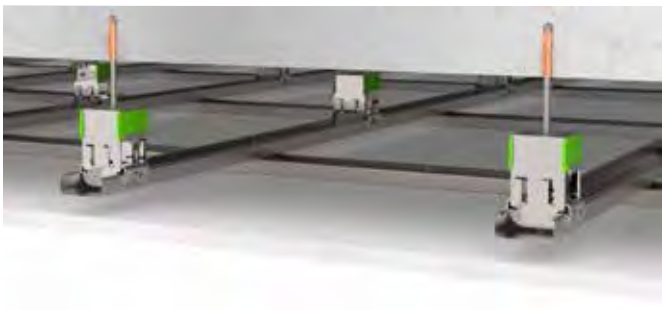
12.- Position plasterboards in place.



13.- Plasterboards fixed.



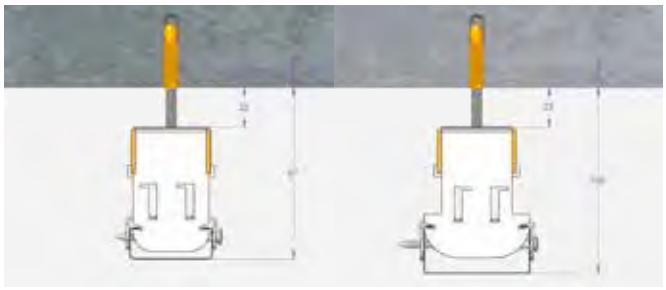
14.- Plasterboards fixed.



MIN/MAX Distances (Type A)

AKUSTIK SUPER T-47 TYPE A
MIN. BOLT LENGTH INSIDE WALL PLUG:
9 mm
MIN. DIST. CONCRETE SLAB TO PROFILE:
77 mm
MAX. DIST. CONCRETE SLAB TO PROFILE:
97 mm

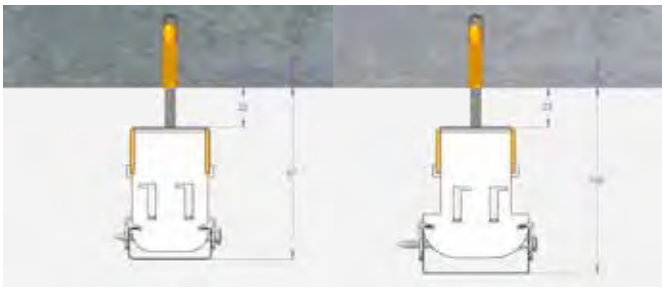
AKUSTIK SUPER T-60 TYPE A
MIN. BOLT LENGTH INSIDE WALL PLUG:
9 mm
MIN. DIST. CONCRETE SLAB TO PROFILE:
77 mm
MAX. DIST. CONCRETE SLAB TO PROFILE:
97 mm



MIN/MAX Distances (Type B)

AKUSTIK SUPER T-47 TYPE B
MIN. BOLT LENGTH INSIDE WALL PLUG:
9 mm
MIN. DIST. CONCRETE SLAB TO PROFILE:
77 mm

AKUSTIK SUPER T-60 TYPE B
MIN. BOLT LENGTH INSIDE WALL PLUG:
9 mm
MIN. DIST. CONCRETE SLAB TO PROFILE:
77 mm



CEILING MOUNTS

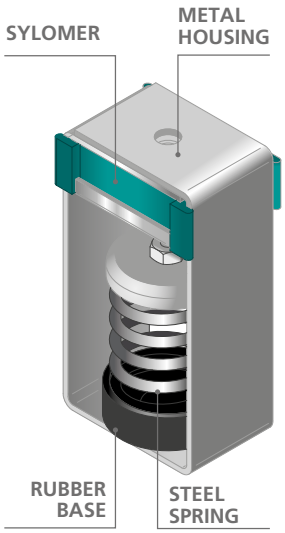
SRS + Sylomer®: Models and dimensions

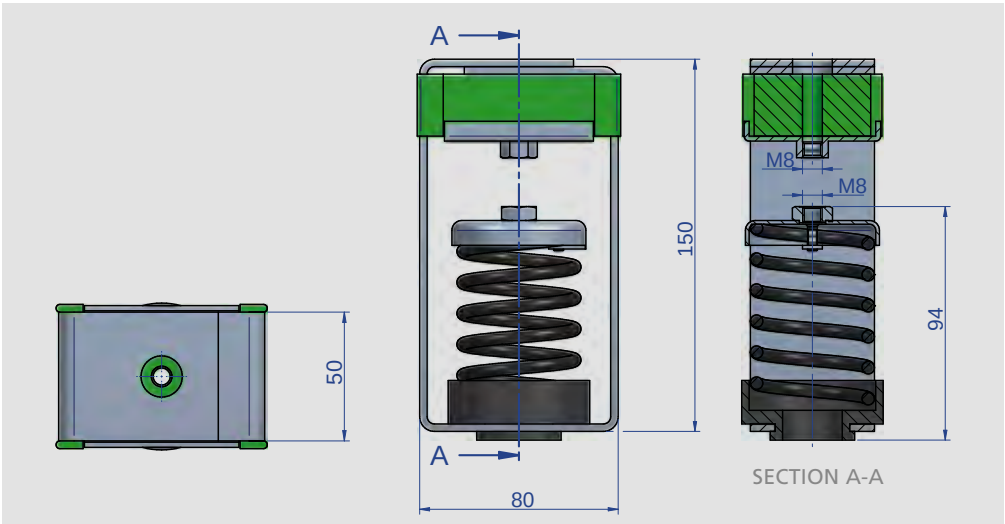
PRODUCT DESCRIPTION

These antivibration mounts have been conceived for the suspension of suspended ceilings or machines that rotate at low frequency. The excellent properties of the Sylomer® microcelular polyurethane combined with the low stiffness of an steel spring achieve increased isolation values as opposed to other mounts using rubber or cork, or a combination of both.

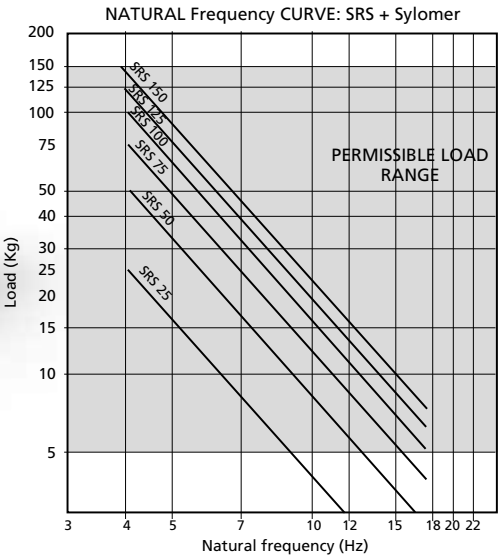
These antivibration mounts are manufactured in 6 different steel spring models to adapt optimal for each application.

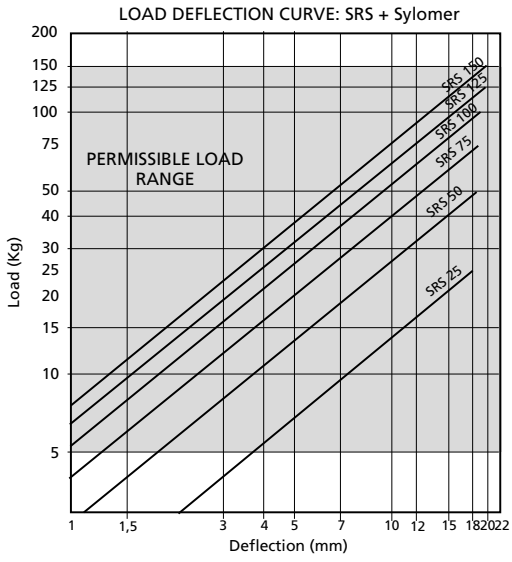
Their rugged metal parts withstand can tensile stresses. They are supplied with an anticorrosive treatment that can resist tensile stresses up to 1000Kg withstand the toughest environments.









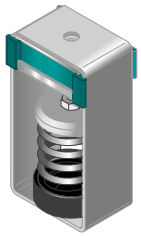
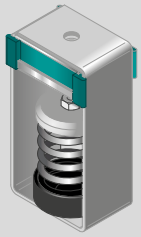
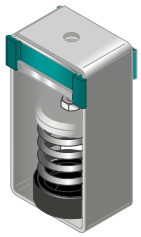
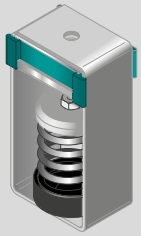
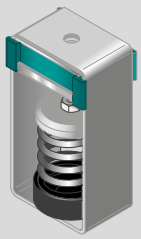






CEILING MOUNTS

SRS + Sylomer®: Range

	REF. AMC	SUMMARY	(Kg). MAX.LOAD	CODE
	SRS 25 + Sylomer®	Sylomer+Steel spring combined hanger.	25	23546
	SRS 50 + Sylomer®	Sylomer+Steel spring combined hanger.	50	23547
	SRS 75 + Sylomer®	Sylomer+Steel spring combined hanger.	75	23551
	SRS 100 + Sylomer®	Sylomer+Steel spring combined hanger.	100	23548
	SRS 125 + Sylomer®	Sylomer+Steel spring combined hanger.	125	23549
	SRS 150 + Sylomer®	Sylomer+Steel spring combined hanger.	150	23550

WALL MOUNTS

EP+Sylomer®: Models and dimensions

PRODUCT DESCRIPTION

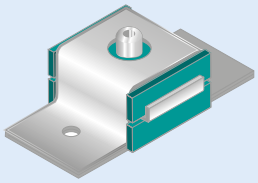
Range designed for the floating suspension of soundproofed walls. Sylomer® avoids the transmission of vibrations while providing optimal acoustic results.

They have a "FAIL SAFE" rugged metal structure, which is overload-proof.

Recommended for applications where fire or impact resistance is necessary.

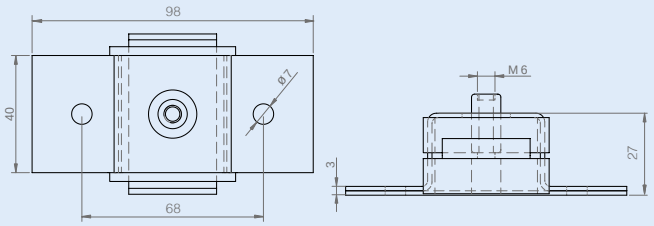
These mounts are also suitable for the isolation of vertical pipes, or any type of lightweight ducts that need to be isolated.

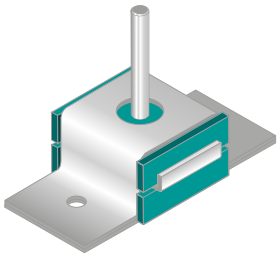




EP+Sylomer® Type B

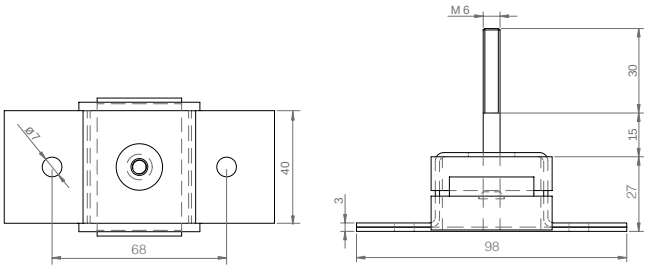
It is secured to the wall by means of two holes. It has a female M6 metal insert.

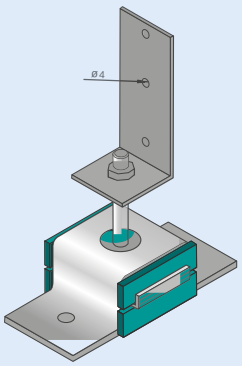




EP+Sylomer® Type A

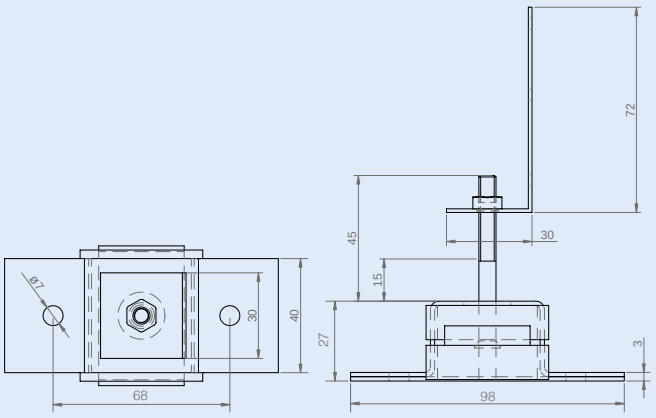
It is secured to the wall by means of two holes. It has a female M6 metal insert.

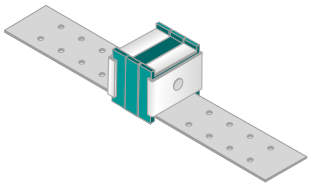




EP 400+Sylomer®

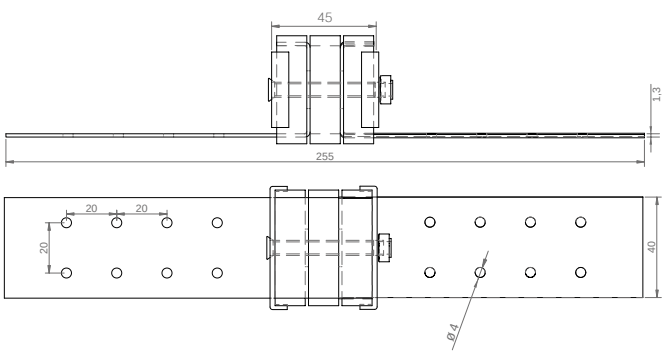
It is secured to the wall by means of two holes. It has a male M6 metal insert and also an "L" welded nut for securing to the profile.





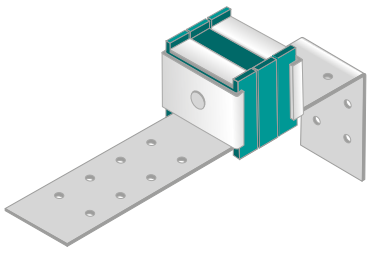
EP 600+Sylomer®

They are secured by two "predrilled" and easy-to-cut pins to facilitate their installation.



WALL MOUNTS

EP+Sylomer®: Models and dimensions

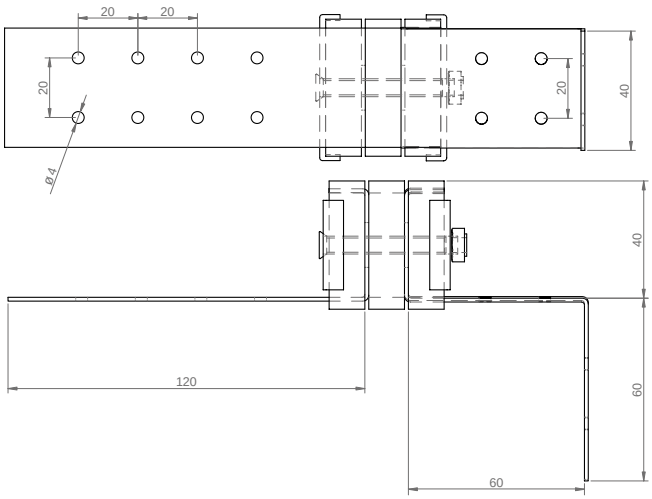


EP 650+Sylomer®

They are secured by two "predrilled" and bent pins to facilitate their installation.

This principle can be used to make a wide range of variants.

Contact us if you require a product more adapted to your building technique.

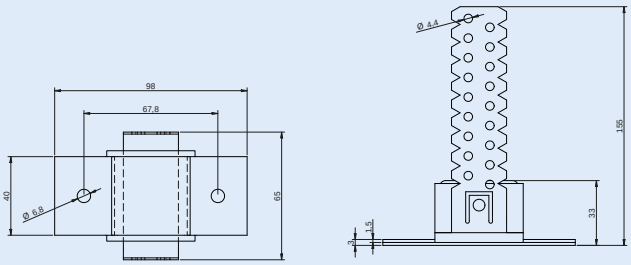




EP 700+Sylomer®

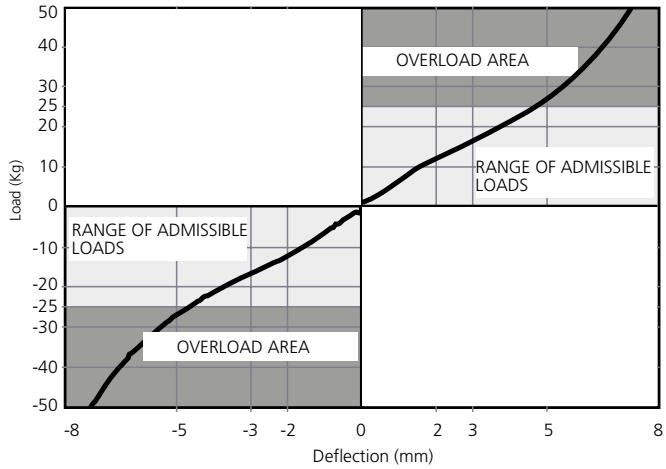
This wall mount has been designed to hold "C" profiles either in vertical or horizontal position.

Allows inclinated ceilings with a simple and fast installation procedure.

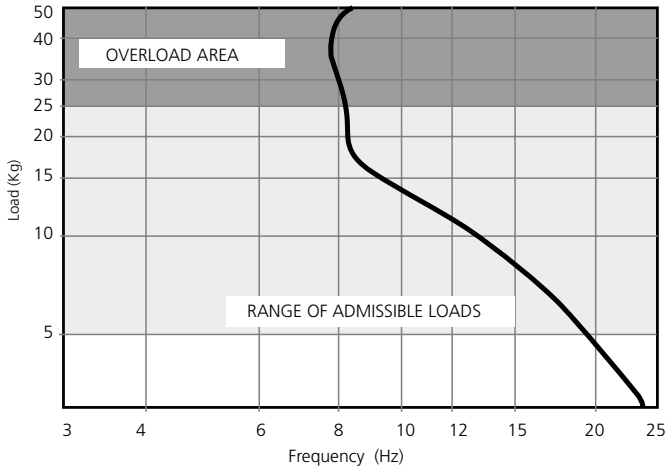


TECHNICAL CHARACTERISTICS

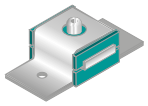
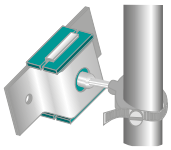
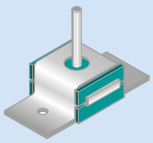
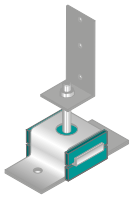
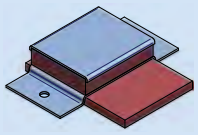
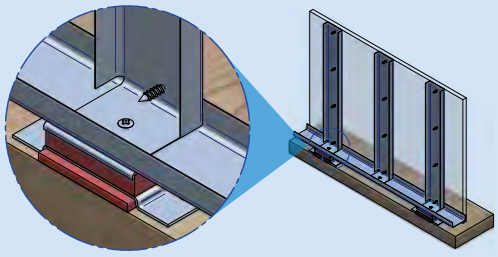
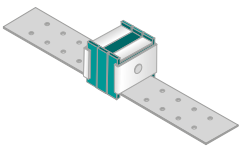
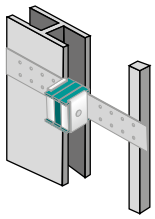
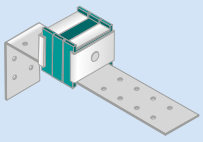
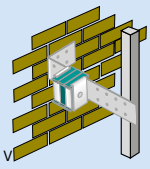
LOAD DEFLECTION GRAPH
EP Akustik+Sylomer®

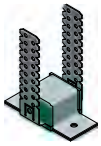
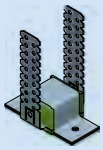


NATURAL FREQUENCY GRAPH
EP Akustik+Sylomer®



WALL MOUNTS
EP+Sylomer® Range

	REF. AMC	INSTALLATION EXAMPLE	CODE
	EP+Sylomer® Typ B		23701
	EP+Sylomer® Typ A		23703
	EP 400+Sylomer®		23705
	EP 500+Sylomer®		23715
	EP 600+Sylomer®		23707
	EP 650+Sylomer®		23709

	REF. AMC	(Kg). MAX. LOAD	CODE
	EP 700+Sylomer® 30	30	23711
	EP 700+Sylomer® 75	75	23712

WALL MOUNTS
EP+ Sylomer®: Applications



Euskalduna Auditorium Bilbao



Music School Helsinki

TSR+Sylomer®
Models and dimensions





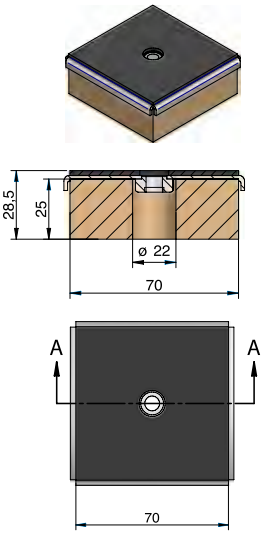
DESCRIPTION

The AMC-MECANOCAUCHO® TSR type anti-vibration mounts include a microcellular and resilient polyurethane compound for anti-vibration purposes called Sylomer®. This Sylomer® is oil resistant and with a temperature range of -30ºC/+70ºC. The TSR mounts can be fixed mechanically thanks to the internal nut incorporated to the metallic part that is treated with an antioxidant coat. This coating complies to the RoHs regulations.

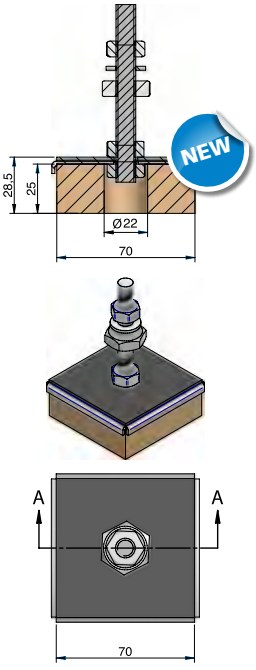
The above Chloroprene based rubber that is bonded to the metal acts as an anti-skid surface for those application where a mechanical fixation is not possible to be made. This layer provides an additional anticorrosive protection. In order to match the application, 6 different densities are supplied for a wide range of loads.

Type	Min. Load (Kg)	Max. Load (Kg)	Freq (Hz) Load Min	Freq (Hz) Max Load	CODE
TSR - 55 M8	10	25	23,8	11	157001
TSR - 110 M8	25	45	17,4	11,1	157002
TSR - 220 M8	45	75	16	11,1	157003
TSR - 450 M8	75	150	15,5	10,4	157004
TSR - 850 M8	150	250	14,2	11,1	157005
TSR - 1200 M8	250	300	11	10	157006
TSR - 55 M10	10	25	23,8	11	157008
TSR - 110 M10	25	45	17,4	11,1	157009
TSR - 220 M10	45	75	16	11,1	157010
TSR - 450 M10	75	150	15,5	10,4	157011
TSR - 850 M10	150	250	14,2	11,1	157012
TSR - 1200 M10	250	300	11	10	157013
TSR - 55 M12	10	25	23,8	11	157014
TSR - 110 M12	25	45	17,4	11,1	157015
TSR - 220 M12	45	75	16	11,1	157016
TSR - 450 M12	75	150	15,5	10,4	157017
TSR - 850 M12	150	250	14,2	11,1	157018
TSR - 1200 M12	250	300	11	10	157019
TSR-55 M8 + Lev Kit. M8x55	10	25	23,8	11	157101
TSR-110 M8+ Lev Kit. M8x55	25	45	17,4	11,1	157102
TSR-220 M8+ Lev Kit. M8x55	45	75	16	11,1	157103
TSR-450 M8+ Lev Kit. M8x55	75	150	15,5	10,4	157104
TSR-850 M8+ Lev Kit. M8x55	150	250	14,2	11,1	157105
TSR-1200 M8+ Lev Kit. M8x55	250	300	11	10	157106
TSR-55 M10+ Lev Kit. M10x90	10	25	23,8	11	157107
TSR-110 M10+ Lev Kit. M10x90	25	45	17,4	11,1	157108
TSR-220 M10+ Lev Kit. M10x90	45	75	16	11,1	157109
TSR-450 M10+ Lev Kit. M10x90	75	150	15,5	10,4	157110
TSR-850 M10+ Lev Kit. M10x90	150	250	14,2	11,1	157111
TSR-1200 M10+ Lev Kit. M10x90	250	300	11	10	157112
TSR-55 M12+ Lev Kit. M12x100	10	25	23,8	11	157113
TSR-110 M12+ Lev Kit. M12x100	25	45	17,4	11,1	157114
TSR-220 M12+ Lev Kit. M12x100	45	75	16	11,1	157115
TSR-450 M12+ Lev Kit. M12x100	75	150	15,5	10,4	157116
TSR-850 M12+ Lev Kit. M12x100	150	250	14,2	11,1	157117
TSR-1200 M12+ Lev Kit. M12x100	250	300	11	10	157118

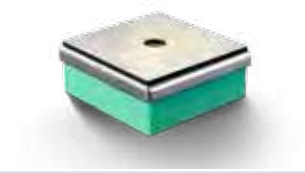
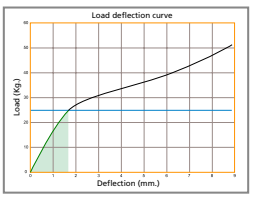
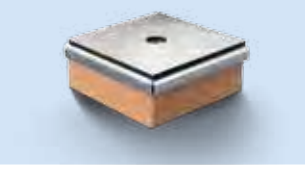
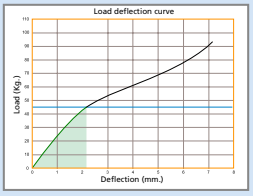
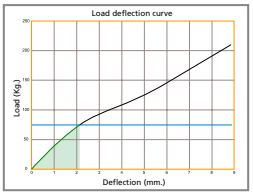
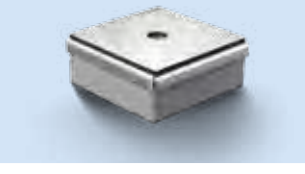
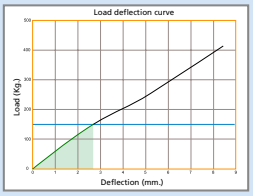
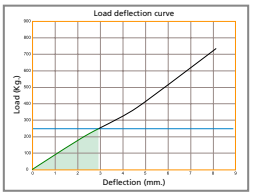
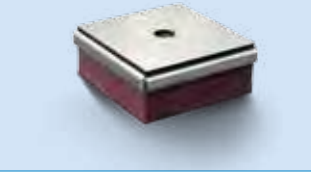
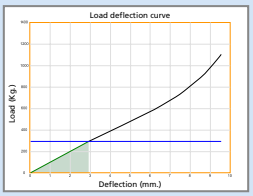
TSR without a levelling kit.



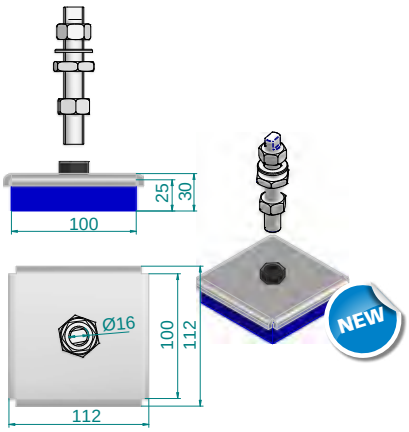
TSR with a levelling kit.



TSR+Sylomer® Range

	REF. AMC	(Kg). MAX. LOAD	Deflection curve	CODE
	TSR 55+Sylomer®	25		157001
	TSR 110+Sylomer®	45		157002
	TSR 220+Sylomer®	75		157003
	TSR 450+Sylomer®	150		157004
	TSR 850+Sylomer®	250		157005
	TSR 1200+Sylomer®	300		157006

Type	Min. Load (Kg)	Max. Load (Kg)	Freq (Hz) Load Min	Freq (Hz) Max Load	CODE
TSR 100x100 SR_55 M16 + Lev Kit. M16x130	20	51	25,4	12,7	157071
TSR 100x100 SR_110 M16 + Lev Kit. M16x130	51	106	18,6	10,8	157072
TSR 100x100 SR_220 M16 + Lev Kit. M16x130	106	194	16,1	10,4	157073
TSR 100x100 SR_450 M16 + Lev Kit. M16x130	194	387	14,9	10	157074
TSR 100x100 SR_850 M16 + Lev Kit. M16x130	387	638	14,5	11,3	157075
TSR 100x100 SR_1200 M16 + Lev Kit. M16x130	638	821	12	10,5	157007



FLOATING FLOOR MOUNTS
FZH+Sylomer®



DESCRIPTION

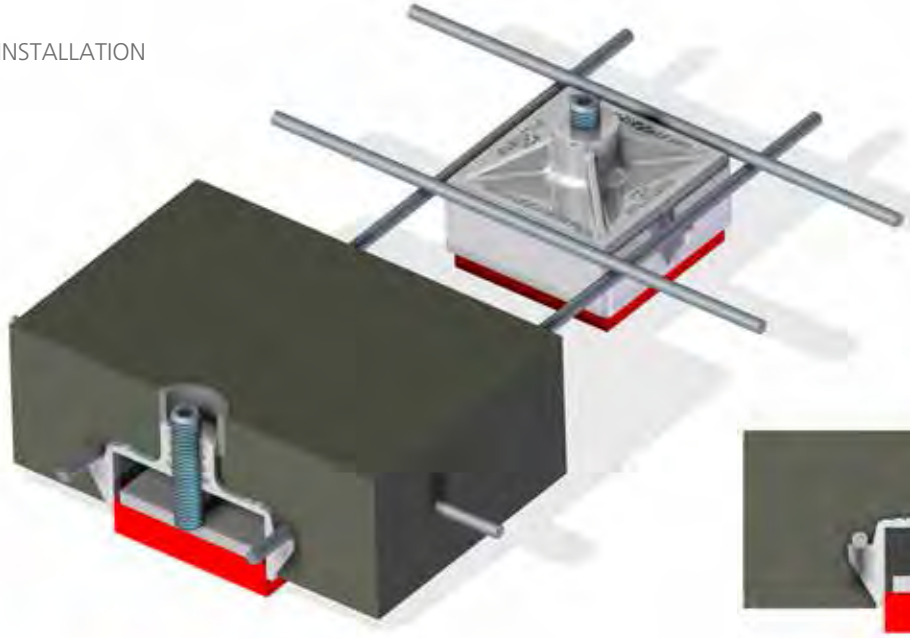
The goal of the system is to avoid the structure borne noise installing elastical mounts that are embedded in the concrete floating floor .The process of elevation is done once the concrete is dry.

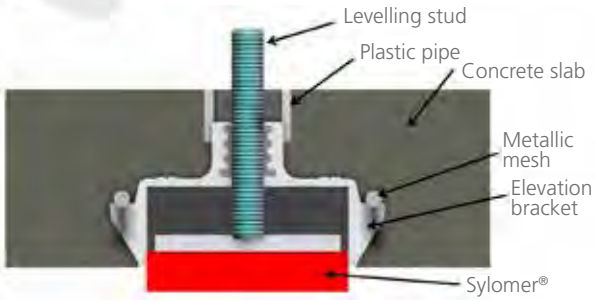
The AMC-MECANOCAUCHO type FZH mounts incorporate a polyurethane elastomer called Sylomer®. This material offers optimal elastic and mechanical properties for the application.

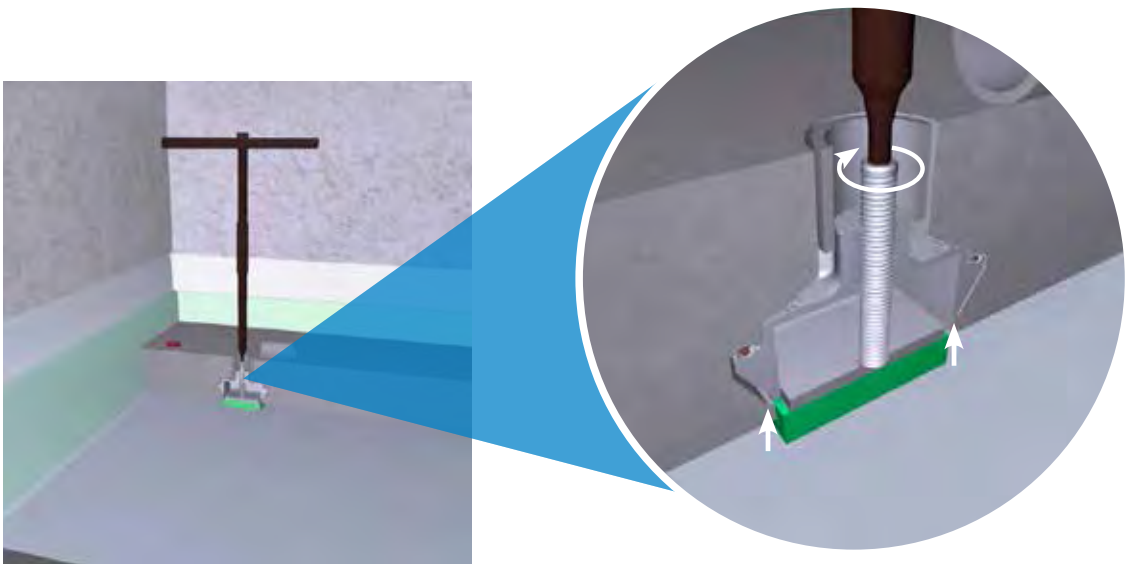
The AMC-MECANOCAUCHO type FZH mounts can be manufactured in different densities of Sylomer to match the natural frequency needed on the application.

The process of leveling is simple and effective. The density of mount per m^2 is 1.12 and the distance between the mounts is 1.2 m.

INSTALLATION







FLOATING FLOOR MOUNTS

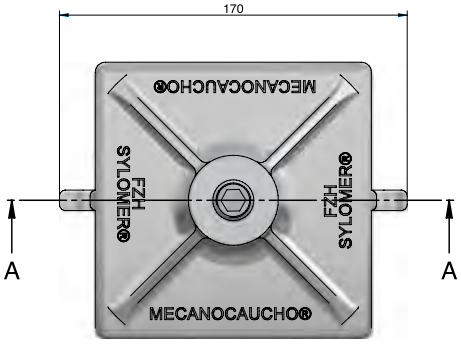
FZH+Sylomer® Range

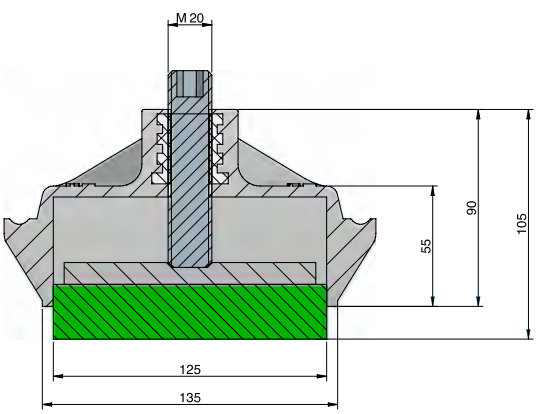
Type		SUMMARY	MAX. LOAD (Kg)	Freq (Hz) Max Load	CODE
	FZH-33-25	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	140	11	176511
	FZH-33-37	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	140	8,6	176512
	FZH-39-25	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	240	11,1	176513
	FZH-39-37	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	240	8,5	176514
	FZH-45-25	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	490	10,4	176515
	FZH-45-37	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	490	8,1	176516
	FZH-51-25	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	800	11,8	176517
	FZH-51-37	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	800	9,1	176518
	FZH-57-25	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	960	11,7	176519
	FZH-57-37	Concrete embedded Jack up mounts, designed for the antivibration suspension of slabs.	960	8,4	176520

ADVANTAGES:

- **Lower height of the screed.** Optimum acoustic efficiency without high concrete thickness.
- This floor mount is specially interesting for those rooms who have limited space and can not use a conventional floor mount that increases the height of the floor.
- **Good isolation,** thanks to the antivibration properties of the Sylomer®. Low frequencies can be achieved providing an optimum isolation.
- **Quick installation,** no need to use plywood boards or joints between them.
- **Cost effective,** no need to use plywood boards nor joints.
- **Safe,** acoustic bridges are avoided when levelling the concrete floor.
- **Simple installation,** no specialist installators are needed.

CHARACTERISTICS





FLOATING FLOOR MOUNTS
INSTALLATION FZH+Sylomer®

INSTALLATION STEPS







Conditioning the premise and installation of the mounts.






Installation of reinforced concrete.



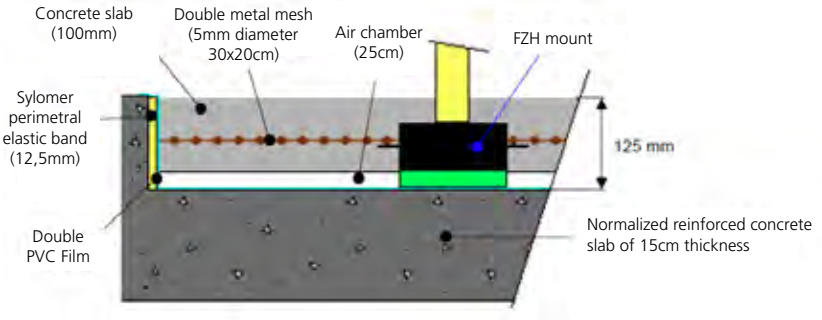



Levelling.




Height adjustment.

COMPARATIVE TESTS AT THE LABEIN TECHNOLOGY CENTRE





Reduction of impact noise on normalized slab according to UNE en ISO 140-8:1998

Laboratory measurements

Test specimen: Floating reinforced concrete slab of 100mm thickness, elevated at 25mm with a system of antivibration mounts as described on the above picture.
Employed supporting slab: Reinforced concrete slab of 15cm thickness, tested in 26/06/09 ($L_{n,0}$)

Volume of the receiving room: 64.7m^3
Volume of the source room: 53.6m^3
Surface of the test specimen: 13.86m^2 (3.3x4.2m)
Estimated specific mass: 250Kg/m^2
Chamber temperature:17.3 C°
Chamber Hygrometry: 77%

Weighted gain according to UNE-EN ISO 717-2:1997 ΔL_W ($C_{I,A}$): 34 (-11) dB

These results rely on the realized tests under an artificial source under Laboratory conditions (engineering method)
* Ln ≤ indicated value and ΔL ≥ indicated value (measurement limits)



f (Hz)	L_n (dB)	$L_{n,0}$ (dB)	ΔL (dB)
100	47,2	65,1	17,9
125	46,9	60,5	13,6
160	53,2	67,5	14,3
200	49,5	65,3	15,8
250	41,8	65,4	23,6
315	37,3	64,7	27,4
400	34,5	65,9	31,4
500	34,3	67,5	33,2
630	31,9	68,0	36,1
800	32,9	70,1	37,2
1000	37,3	70,4	33,1
1250	38,9	70,7	31,8
1600	32,5	70,5	38,0
2000	27,8	70,3	42,5
2500	22,9	69,3	46,4
3150	15,3*	68,1	52,8*
4000	14,1*	66,2	52,1*
5000	11,6*	63,9	52,0*
$L_{n,w}$ / $L_{n,0,w}$	41	76	

Airborne insulation according to UNE EN ISO 140-16:2007

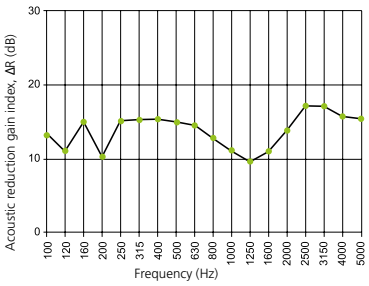
Laboratory measurements according to UNE ISO 140-3:1995

Test specimen: Floating reinforced concrete slab of 100mm thickness, elevated at 25mm with a system of antivibration mounts as described on the above picture.
Employed supporting slab: Reinforced concrete slab of 15cm thickness, tested in 26/06/09 ($R_{WITHOUT}$)

Volume of the receiving room: 64.7m^3
Volume of the source room: 53.6m^3
Surface of the test specimen: 13.86m^2 (3.3x4.2m)
Estimated specific mass: 250Kg/m^2
Chamber temperature:17.3 C°
Chamber Hygrometry: 77%

Isolation gain indexes:
ΔR_A: 13 dBA
ΔR_W: 13 dB
$\Delta(R_W+C)$: 13 dBA
$\Delta(R_W+C_{tr})$: 13 dBA

Evaluation based in laboratory measurements according to engineering method.
* Rwith and ΔR ≥ indicated value (measurements limits).



f (Hz)	R_{with} (dB)	$R_{without}$ (dB)	ΔR (dB)
100	48,4*	34,8	13,6*
125	53,7*	42,6	11,1*
160	54,6*	39,6	15,0*
200	58,1*	47,6	10,5*
250	63,0	47,7	15,3
315	67,6*	52,3	15,3*
400	70,4*	54,9	15,5*
500	71,0*	56,0	15,0*
630	72,3*	57,7	14,6*
800	72,8	59,8	13,0
1000	72,0	60,8	11,2
1250	71,9	62,2	9,7
1600	74,9	63,8	11,1
2000	80,8*	66,8	14,0*
2500	87,5*	70,3	17,2*
3150	91,2*	74,1	17,1*
4000	91,9*	76,1	15,8*
5000	92,3*	76,9	15,4*
R_W ($C;C_{tr}$)	72 (-2; -7)	58 (-2; -7)	
R_A	70,9	57,5	

sylomer® by getzner PAD



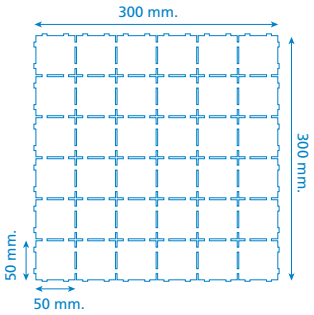
APPLICATIONS

The pieces are made of Sylomer®, which is a very effective material for avoid the transmission of the noise and vibrations thank to its mechanical and elastic proprieties. The microcellular structure provides optimal isolation values with little deflection.

There are available three different Sylomer® densities to ideally suit different required load ranges.

The possibility to cut easily the required piece number according to the load by support makes this product very interesting for all kind of machinery thank to its adaptability.







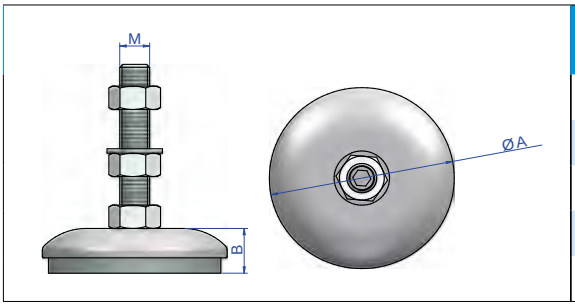
Type	Max. Load kg/piece	THICKNESS (mm.)	Nat Freq. Hz	Weight (kg)	Code
Sylomer® PAD 110	20	12	20,1	0,404	**707601**
		25	13,7	0,606	**707602**
Sylomer® PAD 220	40	12	17,4	0,63	**707603**
		25	11,4	0,97	**707604**
Sylomer® PAD 450	80	12	16,1	0,92	**707605**
		25	10,6	1,345	**707606**

PM Sylomer® Polyurethane Supports



APPLICATIONS

AMC MECANOCAUCHO® has created a new range of Machine Foot mounts for heavy loads. In order to support these heavy weights we use a special mixture of high density polyurethane Sylomer®. Sylomer® offers a better resistance than the synthetic rubbers for oils, solvents, acids and bases.



Type	A (mm.)	B (mm.)	M	LOAD Kg. MIN	LOAD Kg. MAX	Code
PM Sylomer® 70	70	25	M-12	200	950	**144101**
PM Sylomer® 105	105	27	M-16	500	2500	**144102**
PM Sylomer® 125	125	30	M-20	2000	4000	**144103**
PM Sylomer® 165	165	35	M-20	4000	7500	**144104**
PM Sylomer® 220	220	40	M-24	5000	11500	**144105**

APPLICATIONS



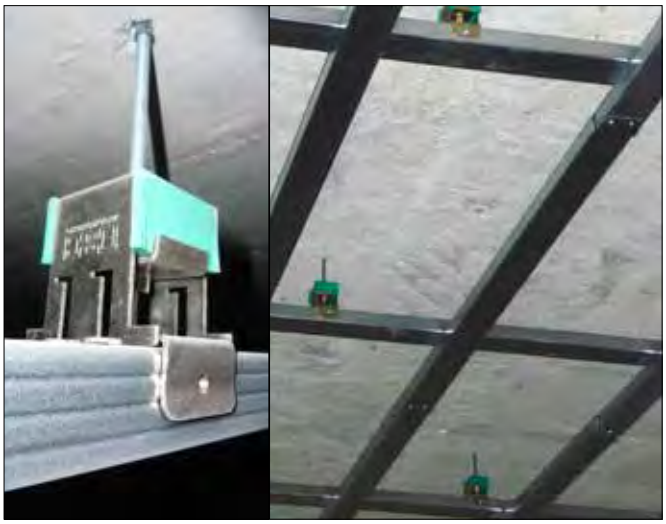
Sheraton Casablanca Hotel.



Ep+Sylomer Type 2.



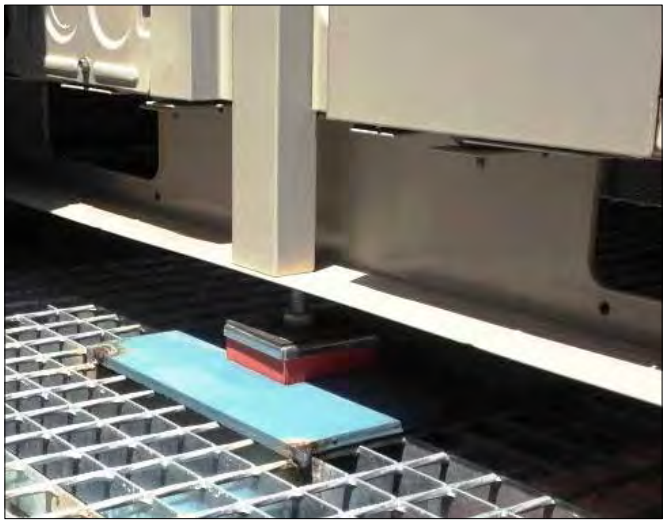
Music School in Madrid



Bier House in Finland.



Caixa Forum Zaragoza.



Example of installtion of a TSR+Sylomer®