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Vibration damping elements

BASE

Zinc-plated steel.

DAMPING ELEMENT

PUR elastomer (Sylomer V12), glued into the base housing, grey colour, resistant to oils and to temperatures from -30°C to +70°C.

BALL JOINT WITH THREADED HOLE OR THREADED STEM

Zinc-plated steel, supplied assembled.

NUT

Zinc-plated steel, supplied assembled.

TECHNICAL DATA

The maximum static permanent load value reported in the table represents the limit that the damping element can withstand permanently. It equals a thrust on the area by 0.4 N/mm², at which the damping material reaches its optimum dynamic damping ability.

The table shows also the values (l₂) of elastic deformation with a load of max 0.6 N/mm² in case of a dynamic load.

When using LM.SV levelling elements properly, the following differentiation in vibration absorption must be considered:

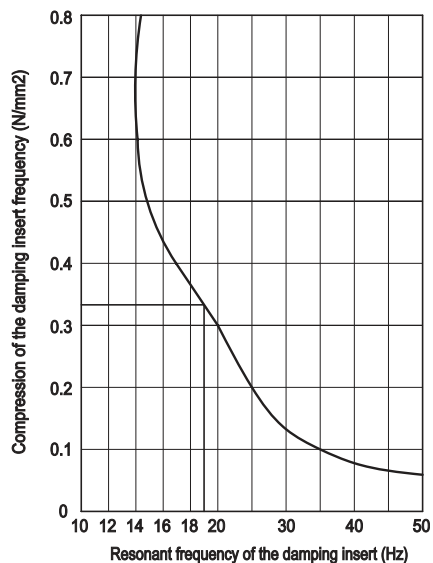
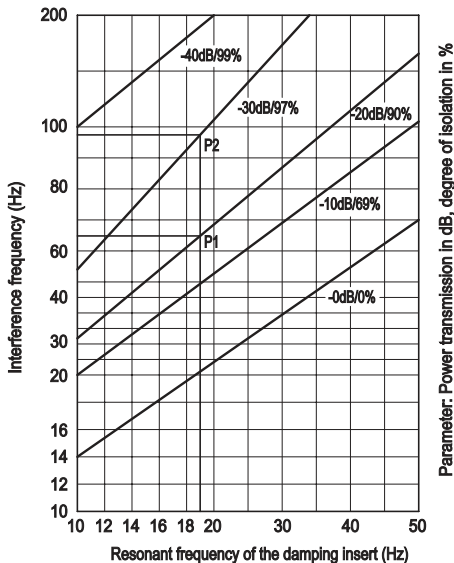
- active vibrations: vibrations transmitted to surroundings or associated equipment (table, basement, ...) by working machinery.
- passive vibrations: vibrations transmitted to equipment or parts by vibrating surroundings or bases.

The efficiency of vibration absorption depends on the interference frequency of the vibration to be absorbed as well as on the resonant frequency of the damping element itself.

A vibration absorbing effect is only achieved when the interference frequency is greater than $\sqrt{2}$ fold the resonant frequency of the damping element.

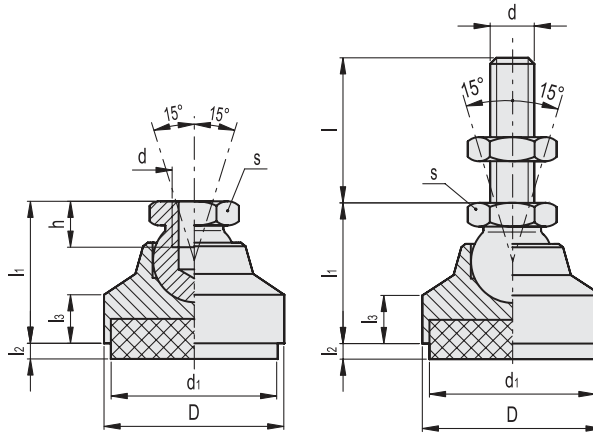
The greater difference (Δ) between the two, the better is the damping effect. The resonant frequency of the damping element depends on the type (composition) of the material, on its geometry and on the static load.

The graphs show all data of PUR elastomer (SV12) of the damping element. Damping materials with other absorption properties are available on request.





Conversion Table 1 mm = 0.039 inch	
D	
mm	inch
32	1.26
40	1.57
50	1.97
60	2.36



LM.SV (d)

METRIC

Code	Description	D	d	l1	l3	h	s	l2			Area damping insert [mm ²]	Static load* [N]	⚖️
								0	0.4	0.6			
401331	LM.32-M10-SV	32	M10	29	11	10.5	16	5.5	4.3	3.4	707	280	65
401341	LM.40-M12-SV	40	M12	30	9.5	11.5	18	6	4.8	3.9	1134	450	100
401351	LM.50-M12-SV	50	M12	30.5	9	11.5	18	6.5	5.3	4.4	1809	720	137
401361	LM.60-M16-SV	60	M16	38.5	11	16	24	7	5.8	4.9	2641	1050	275

LM.SV (d - l)

Code	Description	D	d	l	l1	l3	s	l2			Area damping insert [mm ²]	Static load* [N]	⚖️
								0	0.4	0.6			
401833	LM.32-M10x50-SV	32	M10	50	29	11	16	5.5	4.3	3.4	707	280	107
401836	LM.32-M10x80-SV	32	M10	80	29	11	16	5.5	4.3	3.4	707	280	122
401843	LM.40-M12x63-SV	40	M12	63	30	9.5	18	6	4.8	3.9	1134	450	160
401846	LM.40-M12x100-SV	40	M12	100	30	9.5	18	6	4.8	3.9	1134	450	189
401853	LM.50-M12x63-SV	50	M12	63	30.5	9	18	6.5	5.3	4.4	1809	720	208
401856	LM.50-M12x100-SV	50	M12	100	30.5	9	18	6.5	5.3	4.4	1809	720	250
401863	LM.60-M16x80-SV	60	M16	80	38.5	11	24	7	5.8	4.9	2641	1050	400
401866	LM.60-M16x125-SV	60	M16	125	38.5	11	24	7	5.8	4.9	2641	1050	495

* See technical data section.