Vibration-damping levelling elements

Steel base and stem







































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 (12) 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:

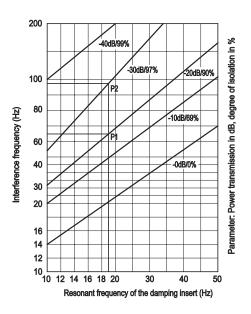
- active vibrations: vibrations transmitted to surroundings or associated equipment (table, basement, ...) by working machinery.
- passive vibrations: vibrations transmitted to equipment or parts by vibrating surroundings or bases.

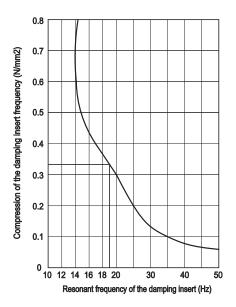
The efficiency of vibration absorption depends on the interference frequency of the vibration to be absorbed as well as on the resonant frequency of the damping element itself.

A vibration absorbing effect is only achieved when the interference frequency is greater than √2 fold the resonant frequency of the damping

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





















































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METRIC

4

137

275

Static load*

[N]

280

450

720

1050

LIVI.SV (1 - 1)				
Code	Description	D	d	ı	l1

D

32

40

50

60

d

M10

M12

M12

M16

l1

29

30

30.5

38.5

13

11

9.5

9

11

Code	Description	D	d	- 1	l1	I 3	s	0 [N/mm ²]	0.4 [N/mm ²]	0.6 [N/mm ²]	insert [mm ²]	Static load* [N]	44
40183	3 LM.32-M10x50-SV	32	M10	50	29	11	16	5.5	4.3	3.4	707	280	107
40183		32	M10	80	29	11	16	5.5	4.3	3.4	707	280	122
40184	3 LM.40-M12x63-SV	40	M12	63	30	9.5	18	6	4.8	3.9	1134	450	160
40184	6 LM.40-M12x100-SV	40	M12	100	30	9.5	18	6	4.8	3.9	1134	450	189
40185	3 LM.50-M12x63-SV	50	M12	63	30.5	9	18	6.5	5.3	4.4	1809	720	208
40185	6 LM.50-M12x100-SV	50	M12	100	30.5	9	18	6.5	5.3	4.4	1809	720	250
40186	3 LM.60-M16x80-SV	60	M16	80	38.5	11	24	7	5.8	4.9	2641	1050	400
40186	6 LM.60-M16x125-SV	60	M16	125	38.5	11	24	7	5.8	4.9	2641	1050	495

12

0

5.5

6

6.5

7

[N/mm²] [N/mm²]

12

0.4

4.3

4.8

5.3

5.8

d١

D

Area damping

insert

[mm²]

707

1134

1809

2641

12

0.6

[N/mm²]

3.4

3.9

4.4

4.9

Conversion Table 1 mm = 0.039 inch

inch

1.26

1.57

1.97

2.36

Description

LM.32-M10-SV

LM.40-M12-SV

LM.50-M12-SV

LM.60-M16-SV

mm

32

40

50

60

LM.SV (d)

Code

401331

401341

401351

401361





dı

D

h

10.5

11.5

11.5

16

S

16

18

18

24

1171

^{*} See technical data section.