INOX STAINLESS STEEL | RoHS | PA | PUR | +80° -30°

Vibration-damping levelling feet

Technopolymer base, Stainless Steel AISI 304 stem, PUR damping element

ELESA Original design

BASE
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

DAMPING ELEMENT
Polyurethane-based rubber (PUR), natural colour, hardness 50 Shore A.

ARTICULATED STEM
Threaded AISI 304 stainless steel with regulation hexagon.

FEATURES
Have been designed to damp vibrations, shocks and noises produced by moving bodies or non-balanced vibrating masses of equipment and machines which can cause:
- malfunctioning and reduction of the machine lifespan and/or of the adjacent ones;
- damage to operator's health;
- noise.

ORDER INFORMATION
The levelling feet are supplied unassembled to make carriage and storage easier. The components (base and stem) are supplied in separate packing: less volume taken and better protection from scratches and dirt.
To order bases and stems separately, see:
- table of possible combinations Bases/Stems.
- the codes of the Bases.
- the codes of the Stems.

TECHNICAL DATA AND GUIDELINES FOR THE CHOICE
The maximum static load value shown in the table indicates the static load for a specific load of 0.4 N/mm² to which the damping element can be subjected in order to have optimal vibration absorption.
The table shows also the values (l_2) of elastic deformation with a load of max 0.6 N/mm² in case of a dynamic load.
The effectiveness of the damping depends on the ratio between the disturbance frequency of the machine and the natural frequency of the damping foot.
The natural frequency of the base depends on the material, the geometry, and the specific load [N/mm²] to which it is subjected.
The specific load is obtained by dividing the applied load by the support area of the damping element.
Once the specific load is known, the natural frequency of the foot can be obtained from the graph in figure 1.
The damping starts when the ratio between the disturbance frequency of the machine and the natural frequency of the damping foot is greater than √2. The greater the difference between the interference frequency of the machine and the natural frequency of the foot, the greater the damping (see figure 2).
Example:
1. Expected load on the foot = 150 N
2. Specific load LS.VA-SST-32 = 150/239 = 0.63 N/mm²
3. Specific load LS.VA-SST-40 = 150/452 = 0.33 N/mm²
4. LS.VA-SST-40 is therefore chosen as the specific load of the example is less than 0.4 N/mm², which is the optimal damping value.
5. Entering the graph in figure 1 with a specific load of 0.33 N/mm² we obtain a natural frequency of 26 Hz (curve LS.VA-SST-40).
6. Entering the graph in figure 2, with 26 Hz, the chosen foot will start to dampen frequencies greater than 32 Hz. A damping of 69% is obtained for a machine frequency of 61 Hz. A damping of 92% is obtained for a machine frequency of 85 Hz.

ACCESSORIES ON REQUEST
Zinc-plated steel nut (see Nuts NT.).

Fig.1

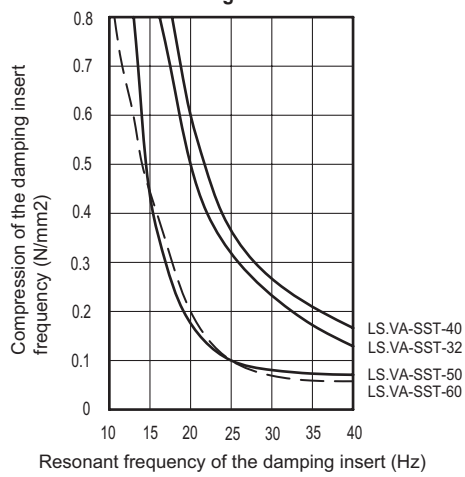
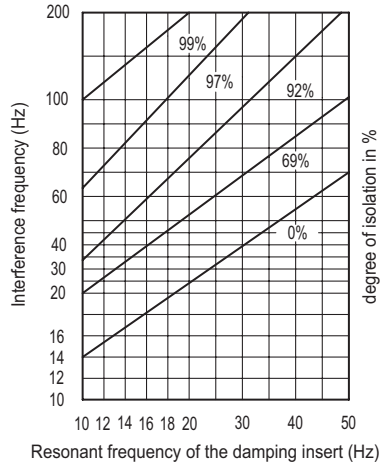
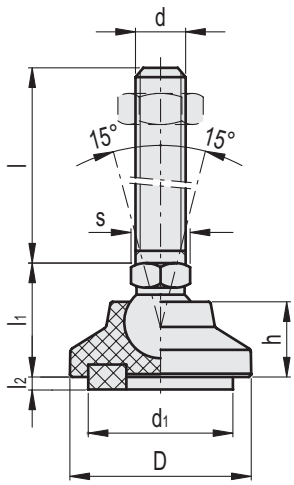


Fig.2



LS.VA-SST | Vibration-damping levelling feet

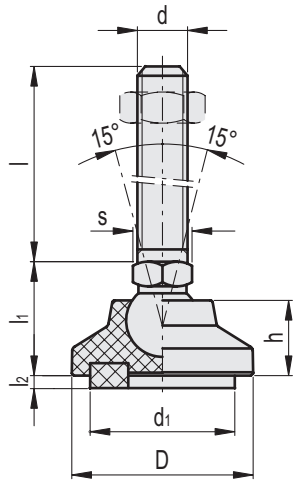


STAINLESS STEEL

Code	Description	D	d	d1	l	l1	l2	h	s	Articulation ø	l2 0 [N/mm²]	l2 0.4 [N/mm²]	l2 0.6 [N/mm²]	Area damping insert [mm²]	Max. limit static load* [N]	⚖
352122	LS.VA-32-14-SST-M8x43	32	M8	23.1	43	25	5.3	15	14	14	5.3	4.8	4.6	239	96	42
352126	LS.VA-32-14-SST-M8x68	32	M8	23.1	68	25	5.3	15	14	14	5.3	4.8	4.6	239	96	52
352222	LS.VA-32-14-SST-M10x43	32	M10	23.1	43	25	5.3	15	14	14	5.3	4.8	4.6	239	96	52
352226	LS.VA-32-14-SST-M10x68	32	M10	23.1	68	25	5.3	15	14	14	5.3	4.8	4.6	239	96	65
352232	LS.VA-32-14-SST-M10x98	32	M10	23.1	98	25	5.3	15	14	14	5.3	4.8	4.6	239	96	79
352322	LS.VA-32-14-SST-M12x43	32	M12	23.1	43	25	5.3	15	14	14	5.3	4.8	4.6	239	96	62
352326	LS.VA-32-14-SST-M12x68	32	M12	23.1	68	25	5.3	15	14	14	5.3	4.8	4.6	239	96	82
352332	LS.VA-32-14-SST-M12x98	32	M12	23.1	98	25	5.3	15	14	14	5.3	4.8	4.6	239	96	102
352422	LS.VA-32-14-SST-M14x68	32	M14	23.1	68	25	5.3	15	14	14	5.3	4.8	4.6	239	96	99
352432	LS.VA-32-14-SST-M14x98	32	M14	23.1	98	25	5.3	15	14	14	5.3	4.8	4.6	239	96	120
352442	LS.VA-32-14-SST-M14x148	32	M14	23.1	148	25	5.3	15	14	14	5.3	4.8	4.6	239	96	203
352522	LS.VA-32-14-SST-M16x68	32	M16	23.1	68	25	5.3	15	16	14	5.3	4.8	4.6	239	96	125
352526	LS.VA-32-14-SST-M16x108	32	M16	23.1	108	25	5.3	15	16	14	5.3	4.8	4.6	239	96	179
352542	LS.VA-32-14-SST-M16x148	32	M16	23.1	148	25	5.3	15	16	14	5.3	4.8	4.6	239	96	232
352562	LS.VA-32-14-SST-M16x168	32	M16	23.1	168	25	5.3	15	16	14	5.3	4.8	4.6	239	96	259
353122	LS.VA-40-14-SST-M8x43	40	M8	30	43	25	6	17	14	14	6	5.6	5.4	452	180	49
353126	LS.VA-40-14-SST-M8x68	40	M8	30	68	25	6	17	14	14	6	5.6	5.4	452	180	59
353222	LS.VA-40-14-SST-M10x43	40	M10	30	43	25	6	17	14	14	6	5.6	5.4	452	180	59
353226	LS.VA-40-14-SST-M10x68	40	M10	30	68	25	6	17	14	14	6	5.6	5.4	452	180	72
353232	LS.VA-40-14-SST-M10x98	40	M10	30	98	25	6	17	14	14	6	5.6	5.4	452	180	86
353322	LS.VA-40-14-SST-M12x43	40	M12	30	43	25	6	17	14	14	6	5.6	5.4	452	180	69
353326	LS.VA-40-14-SST-M12x68	40	M12	30	68	25	6	17	14	14	6	5.6	5.4	452	180	87
353332	LS.VA-40-14-SST-M12x98	40	M12	30	98	25	6	17	14	14	6	5.6	5.4	452	180	109
353422	LS.VA-40-14-SST-M14x68	40	M14	30	68	25	6	17	14	14	6	5.6	5.4	452	180	102
353432	LS.VA-40-14-SST-M14x98	40	M14	30	98	25	6	17	14	14	6	5.6	5.4	452	180	123
353442	LS.VA-40-14-SST-M14x148	40	M14	30	148	25	6	17	14	14	6	5.6	5.4	452	180	206
353522	LS.VA-40-14-SST-M16x68	40	M16	30	68	25	6	17	16	14	6	5.6	5.4	452	180	132
353526	LS.VA-40-14-SST-M16x108	40	M16	30	108	25	6	17	16	14	6	5.6	5.4	452	180	186
353542	LS.VA-40-14-SST-M16x148	40	M16	30	148	25	6	17	16	14	6	5.6	5.4	452	180	239
353562	LS.VA-40-14-SST-M16x168	40	M16	30	168	25	6	17	16	14	6	5.6	5.4	452	180	266

* See paragraph: Technical data and guidelines for the choice.

LS.VA-SST | Vibration-damping levelling feet



STAINLESS STEEL

Code	Description	D	d	d1	l	l1	l2	h	s	Articulation Ø	l2 0 [N/mm²]	l2 0.4 [N/mm²]	l2 0.6 [N/mm²]	Area damping insert [mm²]	Max. limit static load* [N]	⚖
354122	LS.VA-50-14-SST-M8x43	50	M8	40	43	27	6	19	14	14	6	5	4.7	1000	400	61
354126	LS.VA-50-14-SST-M8x68	50	M8	40	68	27	6	19	14	14	6	5	4.7	1000	400	71
354222	LS.VA-50-14-SST-M10x43	50	M10	40	43	27	6	19	14	14	6	5	4.7	1000	400	71
354226	LS.VA-50-14-SST-M10x68	50	M10	40	68	27	6	19	14	14	6	5	4.7	1000	400	84
354232	LS.VA-50-14-SST-M10x98	50	M10	40	98	27	6	19	14	14	6	5	4.7	1000	400	98
354322	LS.VA-50-14-SST-M12x43	50	M12	40	43	27	6	19	14	14	6	5	4.7	1000	400	81
354326	LS.VA-50-14-SST-M12x68	50	M12	40	68	27	6	19	14	14	6	5	4.7	1000	400	99
354332	LS.VA-50-14-SST-M12x98	50	M12	40	98	27	6	19	14	14	6	5	4.7	1000	400	121
354422	LS.VA-50-14-SST-M14x68	50	M14	40	68	27	6	19	14	14	6	5	4.7	1000	400	114
354432	LS.VA-50-14-SST-M14x98	50	M14	40	98	27	6	19	14	14	6	5	4.7	1000	400	135
354442	LS.VA-50-14-SST-M14x148	50	M14	40	148	27	6	19	14	14	6	5	4.7	1000	400	218
354522	LS.VA-50-14-SST-M16x68	50	M16	40	68	27	6	19	16	14	6	5	4.7	1000	400	144
354526	LS.VA-50-14-SST-M16x108	50	M16	40	108	27	6	19	16	14	6	5	4.7	1000	400	197
354542	LS.VA-50-14-SST-M16x148	50	M16	40	148	27	6	19	16	14	6	5	4.7	1000	400	251
354562	LS.VA-50-14-SST-M16x168	50	M16	40	168	27	6	19	16	14	6	5	4.7	1000	400	278
355122	LS.VA-60-14-SST-M8x43	60	M8	50.5	43	33	5	24	14	14	5	3.9	3.5	1709	680	81
355126	LS.VA-60-14-SST-M8x68	60	M8	50.5	68	33	5	24	14	14	5	3.9	3.5	1709	680	93
355222	LS.VA-60-14-SST-M10x43	60	M10	50.5	43	33	5	24	14	14	5	3.9	3.5	1709	680	90
355226	LS.VA-60-14-SST-M10x68	60	M10	50.5	68	33	5	24	14	14	5	3.9	3.5	1709	680	103
355232	LS.VA-60-14-SST-M10x98	60	M10	50.5	98	33	5	24	14	14	5	3.9	3.5	1709	680	117
355322	LS.VA-60-14-SST-M12x43	60	M12	50.5	43	33	5	24	14	14	5	3.9	3.5	1709	680	100
355326	LS.VA-60-14-SST-M12x68	60	M12	50.5	68	33	5	24	14	14	5	3.9	3.5	1709	680	118
355332	LS.VA-60-14-SST-M12x98	60	M12	50.5	98	33	5	24	14	14	5	3.9	3.5	1709	680	140
355422	LS.VA-60-14-SST-M14x68	60	M14	50.5	68	33	5	24	14	14	5	3.9	3.5	1709	680	141
355432	LS.VA-60-14-SST-M14x98	60	M14	50.5	98	33	5	24	14	14	5	3.9	3.5	1709	680	162
355442	LS.VA-60-14-SST-M14x148	60	M14	50.5	148	33	5	24	14	14	5	3.9	3.5	1709	680	245
355522	LS.VA-60-14-SST-M16x68	60	M16	50.5	68	33	5	24	16	14	5	3.9	3.5	1709	680	163
355526	LS.VA-60-14-SST-M16x108	60	M16	50.5	108	33	5	24	16	14	5	3.9	3.5	1709	680	217
355542	LS.VA-60-14-SST-M16x148	60	M16	50.5	148	33	5	24	16	14	5	3.9	3.5	1709	680	270
355562	LS.VA-60-14-SST-M16x168	60	M16	50.5	168	33	5	24	16	14	5	3.9	3.5	1709	680	297
355622	LS.VA-60-24-SST-M16x58	60	M16	50.5	58	43	5	24	24	24	5	3.9	3.5	1709	680	226
355626	LS.VA-60-24-SST-M16x98	60	M16	50.5	98	43	5	24	24	24	5	3.9	3.5	1709	680	279
355722	LS.VA-60-24-SST-M16x138	60	M16	50.5	138	43	5	24	24	24	5	3.9	3.5	1709	680	330
355726	LS.VA-60-24-SST-M16x158	60	M16	50.5	158	43	5	24	24	24	5	3.9	3.5	1709	680	358
355732	LS.VA-60-24-SST-M20x98	60	M20	50.5	98	43	5	24	24	24	5	3.9	3.5	1709	680	351
355822	LS.VA-60-24-SST-M20x138	60	M20	50.5	138	43	5	24	24	24	5	3.9	3.5	1709	680	432
355826	LS.VA-60-24-SST-M20x158	60	M20	50.5	158	43	5	24	24	24	5	3.9	3.5	1709	680	472
355832	LS.VA-60-24-SST-M20x198	60	M20	50.5	198	43	5	24	24	24	5	3.9	3.5	1709	680	558
355922	LS.VA-60-24-SST-M24x98	60	M24	50.5	98	43	5	24	24	24	5	3.9	3.5	1709	680	452
355932	LS.VA-60-24-SST-M24x158	60	M24	50.5	158	43	5	24	24	24	5	3.9	3.5	1709	680	629
355942	LS.VA-60-24-SST-M24x198	60	M24	50.5	198	43	5	24	24	24	5	3.9	3.5	1709	680	751

* See paragraph: Technical data and guidelines for the choice.