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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 adjusting square.

FEATURES AND APPLICATIONS

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 elements 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 (see page 983)
- the codes of the Bases (see page 980)
- the codes of the Stems (see page 985).

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 (l2) 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 $\sqrt{2}$.

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 LSQ.VA-32 = $150/239 = 0.63$ N/mm²
3. Specific load LSQ.VA-40 = $150/452 = 0.33$ N/mm²
4. LSQ.VA-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 LSQ.VA-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. on page 979).



ELESA Original design

Fig.1

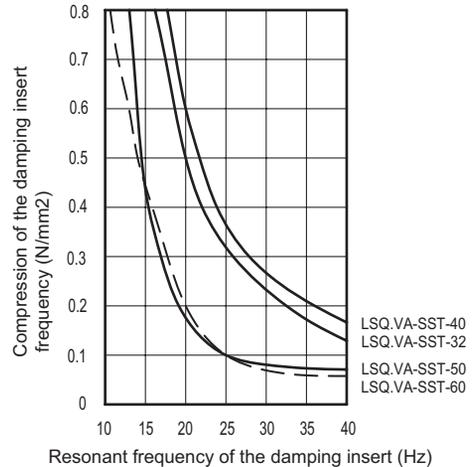
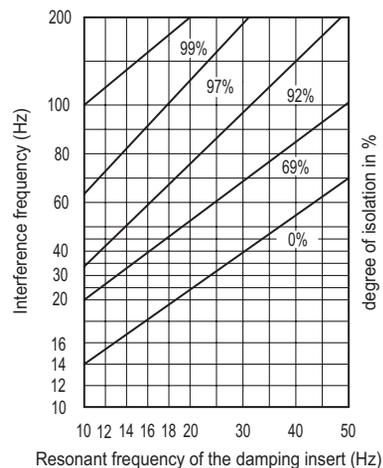
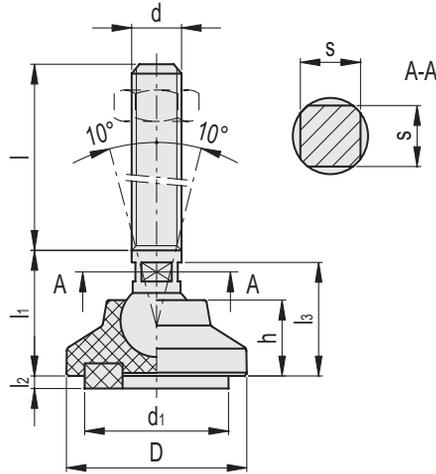


Fig.2





Code	Description	D	d2A	l	l1	l2	l3	d1	h	s	Articulation Ø	I2 0	I2 0.4	I2 0.6	Area damping insert	Max. limit static load*	⚖️
												[lb/finch ²]	[lb/finch ²]	[lb/finch ²]	[inch ²]	[lbf]	
90360112	LSQ.VA-32-8,5-SST-1/2-13X3	1.26	1/2-13	3	0.91	0.21	0.85	0.91	0.59	3/8	0.33	768.70	696.18	667.17	0.37	21.58	0.17
90360114	LSQ.VA-32-8,5-SST-1/2-13X4	1.26	1/2-13	4	0.91	0.21	0.85	0.91	0.59	3/8	0.33	768.70	696.18	667.17	0.37	21.58	0.17
90360116	LSQ.VA-32-8,5-SST-1/2-13X6	1.26	1/2-13	6	0.91	0.21	0.85	0.91	0.59	3/8	0.33	768.70	696.18	667.17	0.37	21.58	0.17
90360122	LSQ.VA-32-14-SST-5/8-11X4	1.26	5/8-11	4	0.94	0.21	0.89	0.91	0.59	1/2	0.55	768.70	696.18	667.17	0.37	21.58	0.37
90360124	LSQ.VA-32-14-SST-5/8-11X6	1.26	5/8-11	6	0.94	0.21	0.89	0.91	0.59	1/2	0.55	768.70	696.18	667.17	0.37	21.58	0.55
90360126	LSQ.VA-32-14-SST-5/8-11X8	1.26	5/8-11	8	0.94	0.21	0.89	0.91	0.59	1/2	0.55	768.70	696.18	667.17	0.37	21.58	0.17
90360141	LSQ.VA-32-14-SST-3/4-10X4	1.26	3/4-10	4	0.94	0.21	0.89	0.91	0.59	9/16	0.55	768.70	696.18	667.17	0.37	21.58	0.17
90360142	LSQ.VA-32-14-SST-3/4-10X6	1.26	3/4-10	6	0.94	0.21	0.89	0.91	0.59	9/16	0.55	768.70	696.18	667.17	0.37	21.58	0.17
90360143	LSQ.VA-32-14-SST-3/4-10X8	1.26	3/4-10	8	0.94	0.21	0.89	0.91	0.59	9/16	0.55	768.70	696.18	667.17	0.37	21.58	0.17
90360212	LSQ.VA-40-8,5-SST-1/2-13X3	1.57	1/2-13	3	0.98	0.24	0.93	1.18	0.67	3/8	0.33	870.23	812.21	783.20	0.70	40.47	0.20
90360214	LSQ.VA-40-8,5-SST-1/2-13X4	1.57	1/2-13	4	0.98	0.24	0.93	1.18	0.67	3/8	0.33	870.23	812.21	783.20	0.70	40.47	0.20
90360216	LSQ.VA-40-8,5-SST-1/2-13X6	1.57	1/2-13	6	0.98	0.24	0.93	1.18	0.67	3/8	0.33	870.23	812.21	783.20	0.70	40.47	0.20
90360222	LSQ.VA-40-14-SST-5/8-11X4	1.57	5/8-11	4	0.98	0.24	0.93	1.18	0.67	5/8	0.55	870.23	812.21	783.20	0.70	40.47	0.39
90360224	LSQ.VA-40-14-SST-5/8-11X6	1.57	5/8-11	6	0.98	0.24	0.93	1.18	0.67	5/8	0.55	870.23	812.21	783.20	0.70	40.47	0.57
90360226	LSQ.VA-40-14-SST-5/8-11X8	1.57	5/8-11	8	0.98	0.24	0.93	1.18	0.67	5/8	0.55	870.23	812.21	783.20	0.70	40.47	0.19
90360241	LSQ.VA-40-14-SST-3/4-10X4	1.57	3/4-10	4	0.98	0.24	0.93	1.18	0.67	9/16	0.55	870.23	812.21	783.20	0.70	40.47	0.19
90360242	LSQ.VA-40-14-SST-3/4-10X6	1.57	3/4-10	6	0.98	0.24	0.93	1.18	0.67	9/16	0.55	870.23	812.21	783.20	0.70	40.47	0.19
90360243	LSQ.VA-40-14-SST-3/4-10X8	1.57	3/4-10	8	0.98	0.24	0.93	1.18	0.67	9/16	0.55	870.23	812.21	783.20	0.70	40.47	0.19
90360312	LSQ.VA-50-8,5-SST-1/2-13X3	1.97	1/2-13	3	1.06	0.24	1.00	1.57	0.75	3/8	0.33	870.23	725.19	681.68	1.55	89.92	0.23
90360314	LSQ.VA-50-8,5-SST-1/2-13X4	1.97	1/2-13	4	1.06	0.24	1.00	1.57	0.75	3/8	0.33	870.23	725.19	681.68	1.55	89.92	0.23
90360316	LSQ.VA-50-8,5-SST-1/2-13X6	1.97	1/2-13	6	1.06	0.24	1.00	1.57	0.75	3/8	0.33	870.23	725.19	681.68	1.55	89.92	0.23
90360322	LSQ.VA-50-14-SST-5/8-11X4	1.97	5/8-11	4	1.06	0.24	1.00	1.57	0.75	5/8	0.55	870.23	725.19	681.68	1.55	89.92	0.42
90360324	LSQ.VA-50-14-SST-5/8-11X6	1.97	5/8-11	6	1.06	0.24	1.00	1.57	0.75	5/8	0.55	870.23	725.19	681.68	1.55	89.92	0.60
90360326	LSQ.VA-50-14-SST-5/8-11X8	1.97	5/8-11	8	1.06	0.24	1.00	1.57	0.75	5/8	0.55	870.23	725.19	681.68	1.55	89.92	0.22
90360341	LSQ.VA-50-14-SST-3/4-10X4	1.97	3/4-10	4	1.06	0.24	1.00	1.57	0.75	9/16	0.55	870.23	725.19	681.68	1.55	89.92	0.22
90360342	LSQ.VA-50-14-SST-3/4-10X6	1.97	3/4-10	6	1.06	0.24	1.00	1.57	0.75	9/16	0.55	870.23	725.19	681.68	1.55	89.92	0.22
90360343	LSQ.VA-50-14-SST-3/4-10X8	1.97	3/4-10	8	1.06	0.24	1.00	1.57	0.75	9/16	0.55	870.23	725.19	681.68	1.55	89.92	0.22
90360392	LSQ.VA-60-14-SST-5/8-11X4	2.36	5/8-11	4	1.42	0.20	1.36	1.99	0.94	5/8	0.55	725.19	565.65	507.63	2.65	152.87	0.57
90360394	LSQ.VA-60-14-SST-5/8-11X6	2.36	5/8-11	6	1.42	0.20	1.36	1.99	0.94	5/8	0.55	725.19	565.65	507.63	2.65	152.87	0.75
90360402	LSQ.VA-60-14-SST-5/8-11X8	2.36	5/8-11	8	1.42	0.20	1.36	1.99	0.94	5/8	0.55	725.19	565.65	507.63	2.65	152.87	0.38
90360406	LSQ.VA-60-14-SST-3/4-10X4	2.36	3/4-10	4	1.61	0.20	1.52	1.99	0.94	9/16	0.55	725.19	565.65	507.63	2.65	152.87	0.38
90360412	LSQ.VA-60-14-SST-3/4-10X6	2.36	3/4-10	6	1.61	0.20	1.52	1.99	0.94	9/16	0.55	725.19	565.65	507.63	2.65	152.87	0.38
90360414	LSQ.VA-60-14-SST-3/4-10X8	2.36	3/4-10	8	1.61	0.20	1.52	1.99	0.94	9/16	0.55	725.19	565.65	507.63	2.65	152.87	0.38

* The max static load is the value above which the load applied to the element may cause some plastic material breakage, in particular conditions of use. Obviously, a factor that takes into consideration the importance and the safety level of the specific application must be applied to this value.

