LW.A

Vibration-damping levelling elements

+80°
-30°

- **Base**
  Zinc-plated steel.
- **Vibration-damping disk**
  Natural rubber NR, hardness 80 Shore A, black colour, matte finish.
- **Levelling plate**
  Zinc-plated steel.
- **Packing ring**
  OR in NBR synthetic rubber.
- **Threaded stem**
  Zinc-plated steel, supplied not assembled.
- **Nut and washer**
  Zinc-plated steel.

Assembly instructions

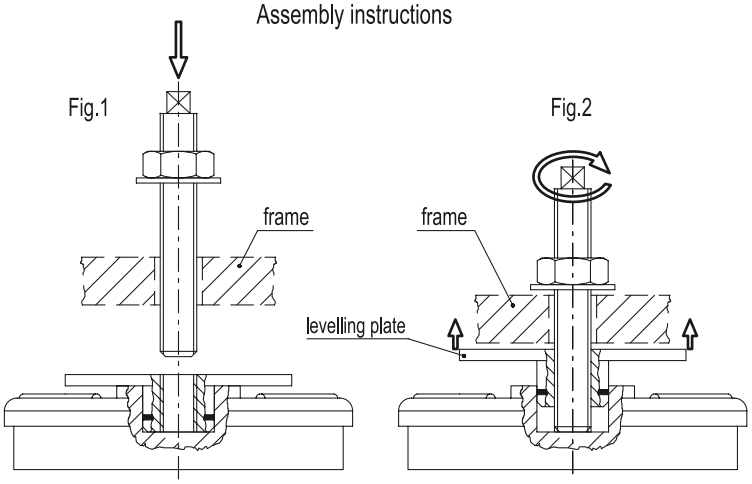
- Put the base of the vibration-damping element under the machine and insert he stem through the hole (not tapped) in the frame of the machine (fig.1)
- Turn the square end of the stem to take the levelling plate in contact with the machine thus obtaining the levelling required. Then lock with nut and washer (fig.2)

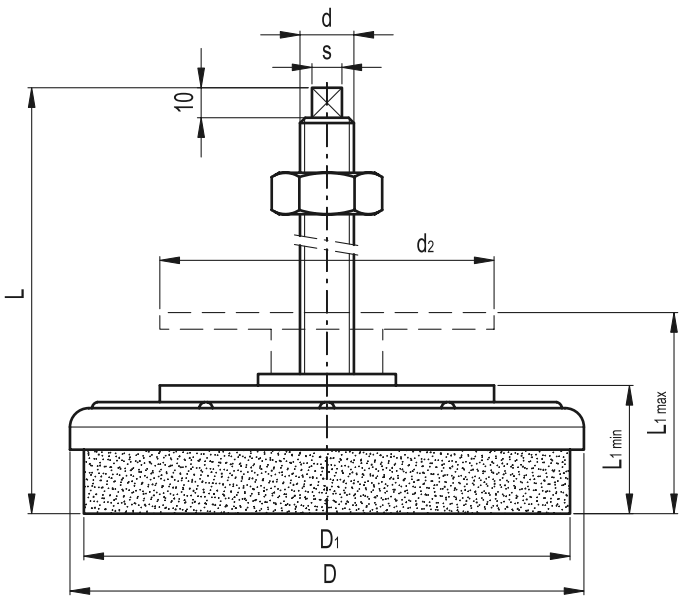
Features and applications

ELESA vibration-damping levelling elements 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 at men's health
- noise.

Assembly instructions





Standard Elements		Main dimensions						Threaded stem		Static load	Stiffness	Max deflection	⚖
Code	Description	D	D1	L	L1 min	L1 max	d2	d	s	[N]	[N/mm]	[mm]	g
415111	LW.A-80-M12x1.25x120	80	72	134	38	50	60	M12x1.25	8x8	5000	2500	2	530
415121	LW.A-120-M16x1.5x130	120	109	150	45	58	80	M16x1.5	9x9	10000	4000	2.5	1200
415131	LW.A-160-M20x1.5x170	160	150	192	55	70	130	M20x1.5	12x12	20000	9000	2.2	2650
415141	LW.A-200-M20x1.5x170	200	186	206	65	80	130	M20x1.5	12x12	40000	15000	2.7	4500

Technical data and guidelines for the choice

1) Basic data required:
- disturbing frequency: the frequency of the disturbing vibration produced by a on-duty machine. In general, it coincides with the number of rotations of the engine [rpm]
- the static load applied to every single vibration-damping element [N]
- the isolation degree required [%]
- damping disk deflection value [mm] under a given load
- the rigidity, that is to say the load that applied to the vibration-damping element, produces a deflection of 1mm [N/mm].

2) How to choose the vibration-damping element:
- with reference to the nomograph (graphic 1), intersect the disturbing frequency value with the isolation degree required (each isolation degree corresponds to a line on the nomograph) and define the deflection (static deflection mm)
- divide the load applied onto the vibration-damping element by the deflection value to obtain the required rigidity of the vibration-damping element
- compare the rigidity obtained with the rigidity shown in the table and choose the vibration-damping element which presents the nearest value (lower) to the calculated one.

3) Check the values obtained:
- the deflection of the vibration-damping element chosen can be obtained in graphic 2 on the basis of the static load.
- intersect the disturbing frequency value with the vibration-damping element deflection value in the nomograph (graphic 1) to obtain the isolation degree offered by the vibration-damping element chosen.
- compare the obtained value with the isolation degree required.

Graphic 1