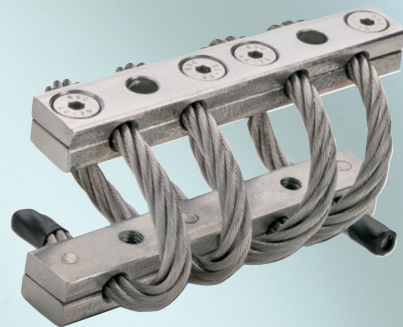


High performance  
vibration dampers

**STANDARD MACHINE ELEMENTS WORLDWIDE**

**elesa<sup>®</sup>**

# High performance vibration dampers - Features and guidelines for the choice

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## General information

High performance vibration dampers are used in compliance with safety regulations on vibrations and noise (DL 81/2008). The use of this product range allows: to prevent damage to structures, to preserve the correct operation of sensitive equipment, to reduce noise.

## Features

### AVC:

- High static deflection, low resonance frequency and high vibration isolation.
- High damping, also suitable for machines with imbalances.
- Suitable for use with with compression, traction and shear.
- Suitable for applications where impacts and shocks may occur.
- Structure fully made out of stainless steel, resistant to flames, high temperatures and corrosion.

### AVM:

- High static deflection depending on height, low resonance frequency and high vibration isolation.
- No damping factor, therefore not suitable for unbalanced machines.
- Suitable for use with with compression.
- Stainless steel springs must be used for temperatures below +5°C (special execution on request).

### AVF:

- Heavy loads with moderate overall dimensions.
- Characterised by non-linear stiffness: vibration isolation in the first section of the curve, in the next section the system is stabilised for any overloads.
- Structure fully made out of stainless steel, resistant to flames, high temperatures and corrosion.

### AVG:

- Good static deflection, low resonance frequency and good vibration isolation.
- High damping factor, also suitable for unbalanced machines.
- Suitable for use with with compression and traction.
- High safety degree: even in the case of the combustion of rubber resilient, the inner pin cannot come out of the structure and keeps the equipment securely suspended.

## Guidelines for the choice

Analysis of the static tests to select the appropriate vibration damper.

### Basic data required:

- The static load applied to each vibration damping element (acting on each support point).
- Disturbing frequency to be reduced and the desired isolation percentage.

### How to choose the vibration-damping element:

- With reference to the diagram for the check of the isolation degree, locate the corresponding static deflection required to obtain the desired isolation.
- Select the product with the required static deflection depending on acting load.

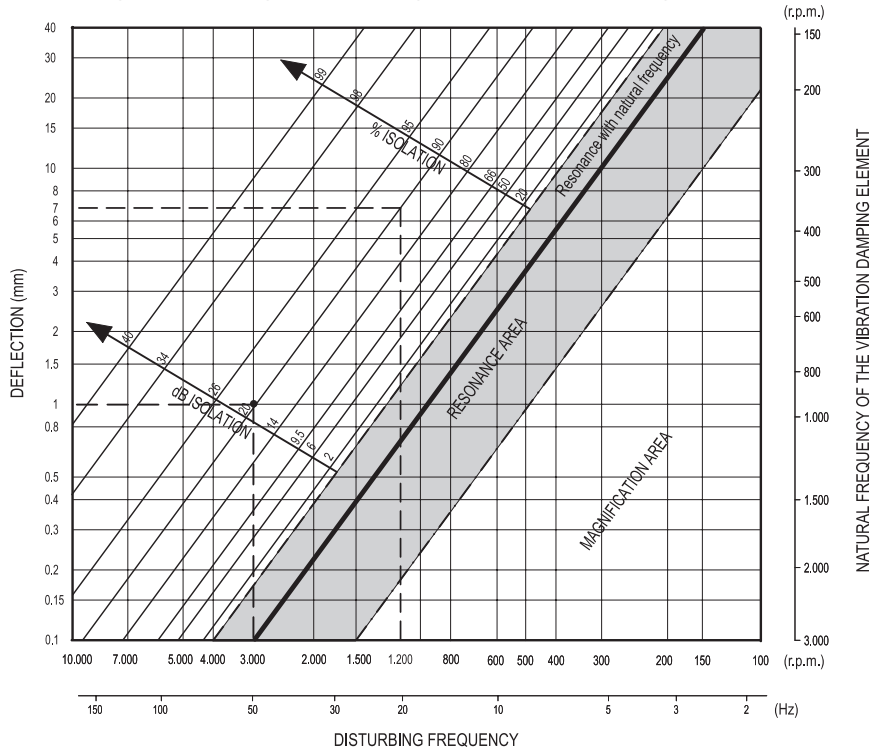
### Example:

Consider an application with the following features:

- Static load on each support: 1400 N
- Frequency to be isolated: 1.200 rpm = 20 Hz
- Required isolation: 90% at 20 Hz

For vibration dampers without damping e.g. AVM, the following diagram for checking the isolation degree shows that a static deflection of at least 7 mm is required to obtain 90% isolation of the 20 Hz frequency. In case of damping, the isolation percentage may vary, it is advisable to contact the Elessa Technical Department.

Diagram for checking the isolation degree of the vibration-damping element



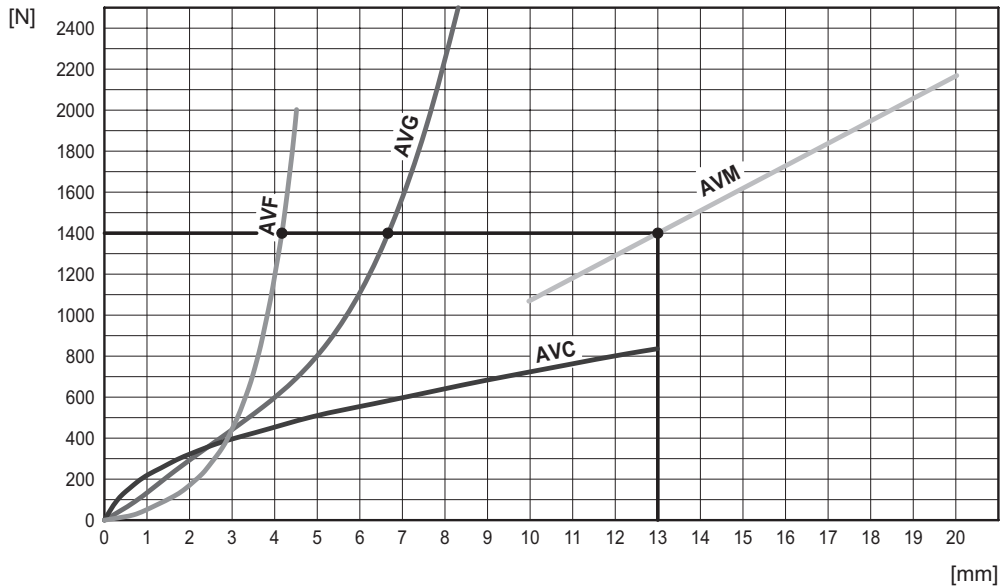
With reference to the graph below the products that intersect the 1400 N line are: AVF, AVG, AVM.

For the 1400 N load, the expected static deflections are:

- AVF: approximately 4 mm (< 7 mm) = approximately 80% isolation at 20 Hz
- AVG: 6.5 mm (< 7 mm) = approximately 88% isolation at 20 Hz
- AVM: 13 mm (< 7 mm) = approximately 95% isolation at 20 Hz

Consequently, the most suitable product with the best isolation degree is AVM.

Example of load diagrams



## Simplified diagram for the check of the degree of isolation of a vibration damper

| Deflec.  | f <sub>0v</sub> | Isolation % |        |        |        |       |        |        |        |       |       |             |      |      |      |      |      |
|----------|-----------------|-------------|--------|--------|--------|-------|--------|--------|--------|-------|-------|-------------|------|------|------|------|------|
| [mm]     | [Hz]            |             |        |        |        |       |        |        |        |       |       |             |      |      |      |      |      |
| 1        | 15.9            | -1%         | -5%    | -11%   | -21%   | -38%  | -65%   | -116%  | -235%  | -795% | -935% | -73%        | 32%  | 70%  | 89%  | 94%  | 96%  |
| 1.5      | 13.0            | -2%         | -7%    | -17%   | -36%   | -70%  | -145%  | -416%  | -1795% | -201% | -55%  | 27%         | 63%  | 82%  | 93%  | 96%  | 98%  |
| 2        | 11.3            | -2%         | -10%   | -25%   | -54%   | -121% | -375%  | -1239% | -148%  | -29%  | 16%   | 54%         | 75%  | 87%  | 95%  | 97%  | 98%  |
| 2.5      | 10.1            | -3%         | -12%   | -33%   | -78%   | -218% | -7569% | -191%  | -33%   | 18%   | 43%   | 66%         | 81%  | 90%  | 96%  | 98%  | 99%  |
| 3        | 9.2             | -3%         | -15%   | -42%   | -111%  | -463% | -442%  | -63%   | 10%    | 40%   | 56%   | 73%         | 84%  | 92%  | 97%  | 98%  | 99%  |
| 4        | 8.0             | -5%         | -21%   | -65%   | -235%  | -935% | -73%   | 13%    | 45%    | 61%   | 70%   | 81%         | 89%  | 94%  | 97%  | 99%  | 99%  |
| 5        | 7.1             | -6%         | -28%   | -97%   | -715%  | -170% | -3%    | 41%    | 60%    | 71%   | 78%   | 85%         | 91%  | 95%  | 98%  | 99%  | 99%  |
| 6        | 6.5             | -7%         | -36%   | -145%  | -1795% | -55%  | 27%    | 55%    | 69%    | 77%   | 82%   | 88%         | 93%  | 96%  | 98%  | 99%  | 99%  |
| <b>7</b> | <b>6.0</b>      | -8%         | -44%   | -223%  | -338%  | -9%   | 43%    | 64%    | 74%    | 81%   | 85%   | <b>90%</b>  | 94%  | 97%  | 99%  | 99%  | 99%  |
| 8        | 5.6             | -10%        | -54%   | -375%  | -148%  | 16%   | 54%    | 70%    | 78%    | 84%   | 87%   | 91%         | 95%  | 97%  | 99%  | 99%  | Max  |
| 10       | 5.0             | -12%        | -78%   | -7569% | -33%   | 43%   | 66%    | 77%    | 83%    | 87%   | 90%   | 93%         | 96%  | 98%  | 99%  | 99%  | Max  |
| 12       | 4.6             | -15%        | -111%  | -442%  | 10%    | 56%   | 73%    | 82%    | 87%    | 90%   | 92%   | 94%         | 97%  | 98%  | 99%  | Max  | Max  |
| 14       | 4.3             | -18%        | -159%  | -162%  | 31%    | 65%   | 78%    | 85%    | 89%    | 91%   | 93%   | 95%         | 97%  | 98%  | 99%  | Max  | Max  |
| 16       | 4.0             | -21%        | -235%  | -73%   | 45%    | 70%   | 81%    | 87%    | 90%    | 92%   | 94%   | 96%         | 97%  | 99%  | 99%  | Max  | Max  |
| 18       | 3.8             | -25%        | -375%  | -29%   | 54%    | 75%   | 84%    | 88%    | 91%    | 93%   | 95%   | 96%         | 98%  | 99%  | 99%  | Max  | Max  |
| 20       | 3.6             | -28%        | -715%  | -3%    | 60%    | 78%   | 85%    | 90%    | 92%    | 94%   | 95%   | 97%         | 98%  | 99%  | 99%  | Max  | Max  |
| 22       | 3.4             | -32%        | -2759% | 15%    | 65%    | 80%   | 87%    | 91%    | 93%    | 95%   | 96%   | 97%         | 98%  | 99%  | Max  | Max  | Max  |
| 25       | 3.2             | -38%        | -935%  | 32%    | 70%    | 83%   | 89%    | 92%    | 94%    | 95%   | 96%   | 97%         | 98%  | 99%  | Max  | Max  | Max  |
| 30       | 2.9             | -49%        | -217%  | 49%    | 77%    | 86%   | 91%    | 93%    | 95%    | 96%   | 97%   | 98%         | 99%  | 99%  | Max  | Max  | Max  |
| 32       | 2.8             | -54%        | -148%  | 54%    | 78%    | 87%   | 91%    | 94%    | 95%    | 96%   | 97%   | 98%         | 99%  | 99%  | Max  | Max  | Max  |
| 35       | 2.7             | -62%        | -87%   | 59%    | 81%    | 88%   | 92%    | 94%    | 96%    | 97%   | 97%   | 98%         | 99%  | 99%  | Max  | Max  | Max  |
| 40       | 2.5             | -78%        | -33%   | 66%    | 83%    | 90%   | 93%    | 95%    | 96%    | 97%   | 98%   | 98%         | 99%  | 99%  | Max  | Max  | Max  |
| 45       | 2.4             | -97%        | -3%    | 71%    | 85%    | 91%   | 94%    | 96%    | 97%    | 97%   | 98%   | 99%         | 99%  | 99%  | Max  | Max  | Max  |
| 50       | 2.3             | -121%       | 16%    | 75%    | 87%    | 92%   | 95%    | 96%    | 97%    | 98%   | 98%   | 99%         | 99%  | Max  | Max  | Max  | Max  |
| 55       | 2.1             | -152%       | 29%    | 77%    | 88%    | 93%   | 95%    | 96%    | 97%    | 98%   | 98%   | 99%         | 99%  | Max  | Max  | Max  | Max  |
| 60       | 2.1             | -192%       | 39%    | 80%    | 90%    | 94%   | 96%    | 97%    | 98%    | 98%   | 98%   | 99%         | 99%  | Max  | Max  | Max  | Max  |
| 70       | 1.9             | -330%       | 52%    | 83%    | 91%    | 95%   | 96%    | 97%    | 98%    | 98%   | 99%   | 99%         | 99%  | Max  | Max  | Max  | Max  |
| 80       | 1.8             | -715%       | 60%    | 85%    | 92%    | 95%   | 97%    | 98%    | 98%    | 99%   | 99%   | 99%         | 99%  | Max  | Max  | Max  | Max  |
| 90       | 1.7             | -7569%      | 66%    | 87%    | 93%    | 96%   | 97%    | 98%    | 98%    | 99%   | 99%   | 99%         | Max  | Max  | Max  | Max  | Max  |
| 100      | 1.6             | -935%       | 70%    | 89%    | 94%    | 96%   | 97%    | 98%    | 99%    | 99%   | 99%   | 99%         | Max  | Max  | Max  | Max  | Max  |
| 150      | 1.3             | -55%        | 82%    | 93%    | 96%    | 98%   | 98%    | 99%    | 99%    | 99%   | 99%   | Max         | Max  | Max  | Max  | Max  | Max  |
| 200      | 1.1             | 16%         | 87%    | 95%    | 97%    | 98%   | 99%    | 99%    | 99%    | 99%   | Max   | Max         | Max  | Max  | Max  | Max  | Max  |
| RPM      |                 | 100         | 200    | 300    | 400    | 500   | 600    | 700    | 800    | 900   | 1000  | <b>1200</b> | 1500 | 2000 | 3000 | 4000 | 5000 |
| [Hz]     |                 | 1.7         | 3.3    | 5.0    | 6.7    | 8.3   | 10.0   | 11.7   | 13.3   | 15.0  | 16.7  | <b>20.0</b> | 25.0 | 33.3 | 50.0 | 66.7 | 83.3 |

No isolation

Minimum isolation

Average isolation

Resonance

Modest isolation

High isolation

CABLE, BARS AND SCREWS

AISI 316 stainless steel.

STANDARD EXECUTIONS

Threaded pass-through holes.

- **AVC-4**: the cable extends for four loops.
- **AVC-6**: the cable extends for six loops.
- **AVC-8**: the cable extends for eight loops.

FEATURES AND APPLICATIONS

AVC wire rope isolators are composed of two pairs of bars, joined together by a connecting cable with a helical winding (loop).

They are generally used for isolating vibrations and shock absorption, where axial holding force, resistance to compression and shear force is required.

Vibrations can cause:

- malfunctioning and reduction of the machine lifespan and/or of the adjacent ones;
- damage to health;
- noise.

They are particularly suitable for use with HVAC, pumps, purification and desalination plants, instrumentation panels, rail, naval and military industry. Some examples of application are shown in Fig.1.

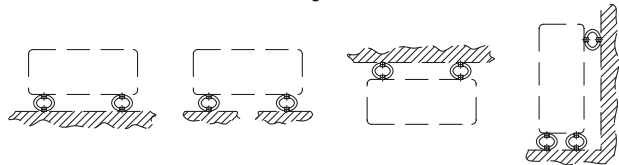
See High performance vibration dampers - Features and guidelines for the choice (on page 2).

SPECIAL EXECUTIONS ON REQUEST

- Wire rope vibration dampers with AISI 304 stainless steel bars.
- Wire rope vibration dampers with aluminium bars with chromic passivation.

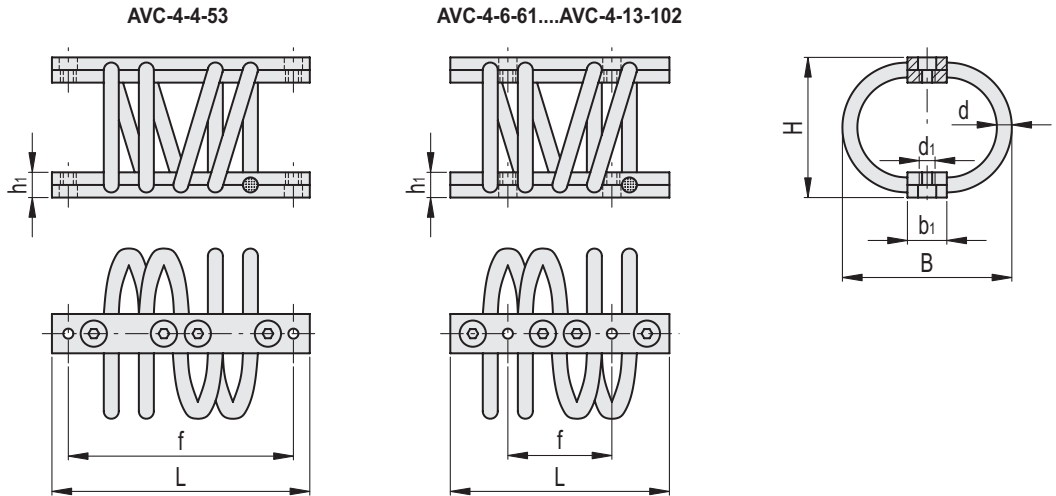


Fig.1



| Description  | Compression resistance |              |                     |                      | Axial holding force |              |                     |                      | Shear resistance |              |                     |                      |
|--------------|------------------------|--------------|---------------------|----------------------|---------------------|--------------|---------------------|----------------------|------------------|--------------|---------------------|----------------------|
|              | Min load [N]           | Max load [N] | Min deflection [mm] | Max. deflection [mm] | Min load [N]        | Max load [N] | Min deflection [mm] | Max. deflection [mm] | Min load [N]     | Max load [N] | Min deflection [mm] | Max. deflection [mm] |
| AVC-4-4-53   | 50                     | 110          | 2                   | 5                    | 50                  | 110          | 1                   | 3                    | 20               | 40           | 5                   | 10                   |
| AVC-4-6-61   | 200                    | 300          | 2                   | 4                    | 200                 | 300          | 2                   | 3                    | 70               | 150          | 3                   | 7                    |
| AVC-4-6-93   | 70                     | 140          | 2                   | 7                    | 70                  | 140          | 3                   | 6                    | 30               | 70           | 5                   | 13                   |
| AVC-4-7-110  | 80                     | 180          | 2                   | 9                    | 80                  | 180          | 2                   | 8                    | 30               | 90           | 5                   | 17                   |
| AVC-4-10-80  | 850                    | 1500         | 2                   | 5                    | 850                 | 1500         | 1                   | 3                    | 400              | 900          | 4                   | 11                   |
| AVC-4-10-108 | 300                    | 630          | 2                   | 7                    | 300                 | 630          | 2                   | 6                    | 150              | 300          | 5                   | 14                   |
| AVC-4-13-102 | 1000                   | 2500         | 2                   | 8                    | 1000                | 2500         | 2                   | 5                    | 500              | 1000         | 5                   | 13                   |
| AVC-6-7-82   | 200                    | 450          | 2                   | 6                    | 200                 | 450          | 2                   | 5                    | 100              | 230          | 3                   | 11                   |
| AVC-6-8-67   | 600                    | 1000         | 2                   | 4                    | 600                 | 1000         | 2                   | 3                    | 300              | 600          | 3                   | 8                    |
| AVC-6-10-80  | 1500                   | 2500         | 2                   | 5                    | 1500                | 2500         | 1                   | 3                    | 750              | 1400         | 5                   | 11                   |
| AVC-6-13-135 | 850                    | 1500         | 4                   | 11                   | 850                 | 1500         | 4                   | 11                   | 300              | 800          | 6                   | 21                   |
| AVC-8-13-120 | 1500                   | 3000         | 4                   | 11                   | 1500                | 3000         | 3                   | 7                    | 600              | 1500         | 7                   | 19                   |

The min. load is the value below which the vibration damper is not able to isolate the vibrations as it would be too rigid.  
The max load is the value beyond which some type of failure may occur compromising the functionality of the vibration damper.  
The min.deflection is the compression of the vibration-damping support corresponding to the min. load.  
The max.deflection is the compression of the vibration-damping support corresponding to the max. load.

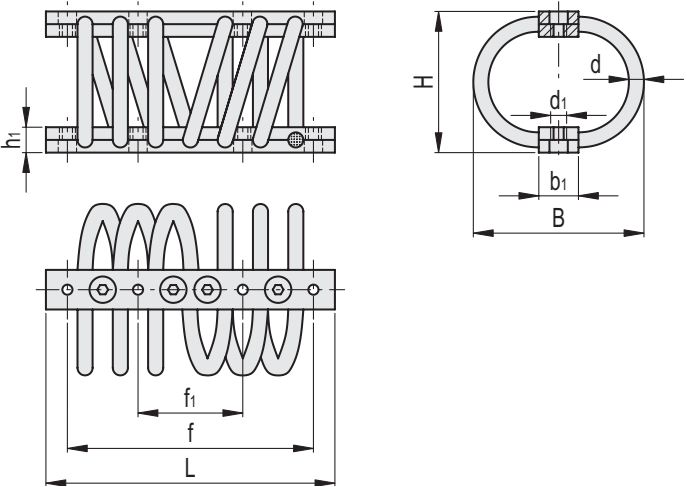


AVC-4

INOX STAINLESS STEEL

| Code   | Description  | B      | L   | H     | d  | d1 | b1 | h1 | f  | △    |
|--------|--------------|--------|-----|-------|----|----|----|----|----|------|
| 480001 | AVC-4-4-53   | 53 ±3  | 71  | 45 ±3 | 4  | M6 | 15 | 8  | 61 | 180  |
| 480003 | AVC-4-6-61   | 61 ±3  | 91  | 51 ±3 | 6  | M6 | 15 | 12 | 46 | 370  |
| 480005 | AVC-4-6-93   | 90 ±4  | 91  | 65 ±4 | 6  | M6 | 15 | 12 | 46 | 420  |
| 480007 | AVC-4-7-110  | 110 ±4 | 91  | 79 ±4 | 7  | M6 | 15 | 12 | 46 | 500  |
| 480009 | AVC-4-10-80  | 80 ±4  | 155 | 68 ±4 | 10 | M8 | 25 | 16 | 83 | 1280 |
| 480011 | AVC-4-10-108 | 108 ±4 | 155 | 89 ±4 | 10 | M8 | 25 | 16 | 83 | 1430 |
| 480013 | AVC-4-13-102 | 101 ±4 | 155 | 80 ±4 | 13 | M8 | 25 | 20 | 83 | 1760 |

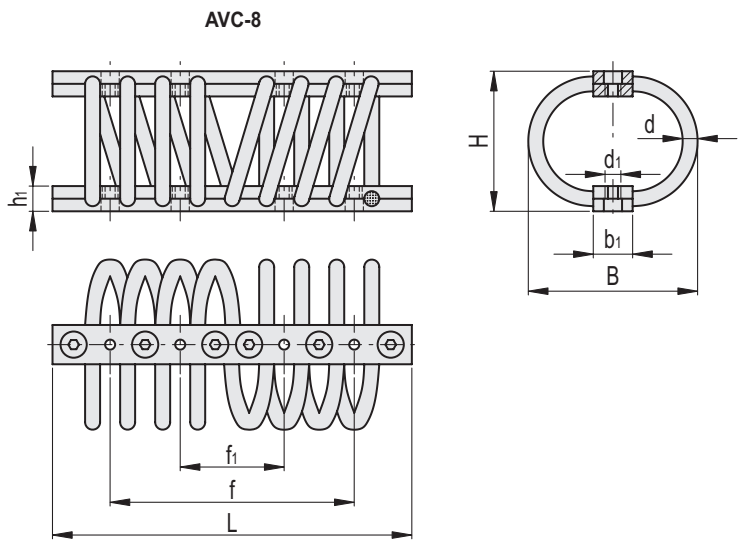
AVC-6



AVC-6

INOX STAINLESS STEEL

| Code   | Description  | B      | L   | H      | d  | d1 | b1 | h1 | f    | f1    | △    |
|--------|--------------|--------|-----|--------|----|----|----|----|------|-------|------|
| 480021 | AVC-6-7-82   | 82 ±4  | 200 | 60 ±4  | 7  | M6 | 15 | 12 | 66   | 155   | 870  |
| 480023 | AVC-6-8-67   | 67 ±4  | 200 | 53 ±4  | 8  | M6 | 15 | 12 | 66   | 155   | 870  |
| 480025 | AVC-6-10-80  | 80 ±4  | 169 | 68 ±4  | 10 | M6 | 25 | 16 | 66   | 155   | 1490 |
| 480027 | AVC-6-13-135 | 135 ±5 | 178 | 110 ±5 | 13 | M8 | 25 | 20 | 66,6 | 155,5 | 2610 |



AVC-8

INOX STAINLESS STEEL

| Code   | Description  | B      | L   | H     | d  | d1 | b1 | h1 | f  | f1  | ⚖    |
|--------|--------------|--------|-----|-------|----|----|----|----|----|-----|------|
| 480029 | AVC-8-13-120 | 118 ±4 | 222 | 95 ±4 | 13 | M6 | 25 | 20 | 66 | 155 | 3040 |

## BODY AND NO-SLIP COATING

NBR rubber.

Hardness 60 Shore A  $\pm 5$ .

## SPRING AND PLATE

Zinc-plated steel.

## SPRING CAPS

Aluminium.

## FEATURES AND APPLICATIONS

AVM spring mounts comprise a body and a non-slip coating fixed to the lower part with a zinc-plated screw, and a spring on which two caps with pass-through holes at the ends are fixed.

They are generally used for vibration isolation in compression.

Vibrations can cause:

- malfunctioning and reduction of the machine lifespan and/or of the adjacent ones;
- damage to health;
- noise.

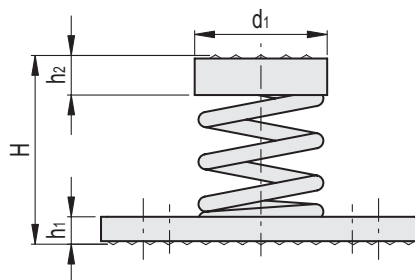
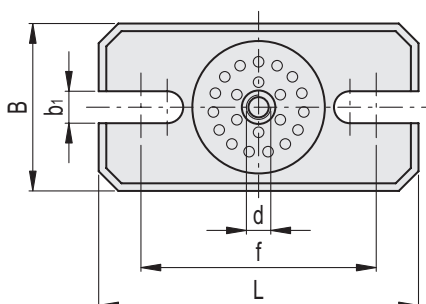
They are particularly suitable for use with HVAC, compressors, refrigeration units, centrifuges, crushers, vibrating screens and generators.

See High performance vibration dampers - Features and guidelines for the choice (on page 2).



## SPECIAL EXECUTIONS ON REQUEST

- Vibration dampers with one spring, with pins or threaded holes with a baseplate.
- Vibration dampers with spring, with two plates.
- Vibration dampers with spring, with one or two plates and pins for transport.



| Code   | Description | B  | L   | H  | d  | d1   | b1   | h1 | h2 | f $\pm 5^*$ | Min load [N] | Max load [N] | Min deflection [mm] | Max. deflection [mm] | $\Delta$ |
|--------|-------------|----|-----|----|----|------|------|----|----|-------------|--------------|--------------|---------------------|----------------------|----------|
| 480121 | AVM-50-13   | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 50           | 130          | 5                   | 15                   | 360      |
| 480123 | AVM-50-25   | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 80           | 250          | 5                   | 15                   | 370      |
| 480125 | AVM-50-35   | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 120          | 350          | 5                   | 15                   | 380      |
| 480127 | AVM-50-50   | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 180          | 500          | 5                   | 15                   | 400      |
| 480129 | AVM-50-80   | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 270          | 800          | 5                   | 15                   | 380      |
| 480131 | AVM-50-115  | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 400          | 1150         | 5                   | 15                   | 430      |
| 480133 | AVM-50-135  | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 450          | 1350         | 5                   | 15                   | 420      |
| 480135 | AVM-50-155  | 55 | 105 | 62 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 600          | 1550         | 5                   | 13                   | 450      |
| 480137 | AVM-50-200  | 55 | 105 | 62 | M8 | 48   | 10.5 | 9  | 18 | 75          | 850          | 2000         | 5                   | 12                   | 470      |
| 480141 | AVM-80-15   | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 80           | 150          | 10                  | 20                   | 360      |
| 480143 | AVM-80-35   | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 150          | 350          | 10                  | 20                   | 370      |
| 480145 | AVM-80-55   | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 270          | 550          | 10                  | 20                   | 380      |
| 480147 | AVM-80-80   | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 400          | 800          | 10                  | 20                   | 400      |
| 480149 | AVM-80-100  | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 500          | 1000         | 10                  | 20                   | 490      |
| 480151 | AVM-80-140  | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 700          | 1400         | 10                  | 20                   | 450      |
| 480153 | AVM-80-175  | 55 | 105 | 92 | M8 | 43.5 | 10.5 | 9  | 13 | 75          | 900          | 1750         | 10                  | 20                   | 490      |
| 480155 | AVM-80-215  | 55 | 105 | 92 | M8 | 48   | 10.5 | 9  | 18 | 75          | 1050         | 2150         | 10                  | 20                   | 530      |
| 480157 | AVM-80-350  | 55 | 105 | 92 | M8 | 48   | 10.5 | 9  | 18 | 75          | 1750         | 3500         | 10                  | 20                   | 610      |
| 480159 | AVM-80-510  | 55 | 105 | 92 | M8 | 48   | 10.5 | 9  | 18 | 75          | 3400         | 5100         | 10                  | 15                   | 650      |

\* Fixing holes centre distance.

The min. load is the value below which the vibration damper is not able to isolate the vibrations as it would be too rigid.

The max load is the value beyond which some type of failure may occur that compromises the functionality of the vibration damper.

The min.deflection is the crushing of the vibration-damping support corresponding to the min. load.

The max.deflection is the crushing of the vibration-damping support corresponding to the max. load.



FLANGE BODY

Aluminium painted with nitrocellulose-based enamel in blue colour RAL 5010.

THREADED BUSHING

Black coated steel.

VIBRATION-DAMPER BODY

NBR rubber.

Hardness 30, 50, 60 Shore A ±5.

FEATURES AND APPLICATIONS

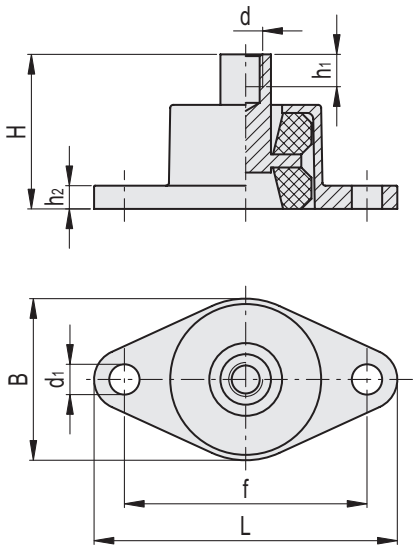
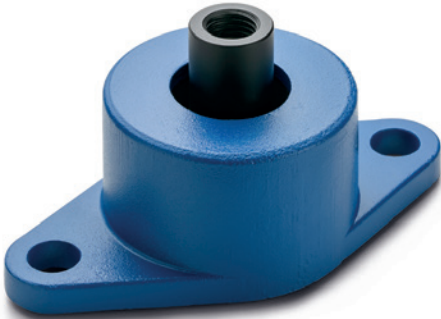
They are generally used for isolating strong vibrations, where axial holding force and resistance to compression is required.

Vibrations can cause:

- malfunctioning and reduction of the machine lifespan and/or of the adjacent ones;
- damage to health;
- noise.

They are particularly suitable for use with machine tools, presses for moulding plastics materials, special machines and shock absorption.

See High performance vibration dampers - Characteristics and selection criteria (on page 2).



| Code   | Description | B  | L   | H  | d   | d1 | h1 | h2 | f   | Min load<br>[N] | Max load<br>[N] | Min deflection<br>[mm] | Max. deflection<br>[mm] | Shore A | ΔΔ  |
|--------|-------------|----|-----|----|-----|----|----|----|-----|-----------------|-----------------|------------------------|-------------------------|---------|-----|
| 480181 | AVG-30      | 80 | 150 | 75 | M16 | 15 | 16 | 10 | 120 | 700             | 2700            | 3                      | 6.5                     | 30      | 650 |
| 480183 | AVG-50      | 80 | 150 | 75 | M16 | 15 | 16 | 10 | 120 | 1200            | 4500            | 3                      | 6.5                     | 50      | 650 |
| 480185 | AVG-60      | 80 | 150 | 75 | M16 | 15 | 16 | 10 | 120 | 1400            | 6000            | 3                      | 6.5                     | 60      | 650 |

The min. load is the value below which the vibration damper is not able to isolate the vibrations as it would be too rigid.  
The max load is the value beyond which some type of failure may occur that compromises the functionality of the vibration damper.  
The min.deflection is the crushing of the vibration-damping support corresponding to the min. load.  
The max.deflection is the crushing of the vibration-damping support corresponding to the max. load.

# MESH

AISI 304 stainless steel.

## STANDARD EXECUTIONS

- **AVF-A**: plain pass-through hole.
- **AVF-SH**: plain pass-through hole for countersunk-head screws.

## FEATURES AND APPLICATIONS

They are generally used for vibration isolation in compression.

Vibrations can cause:

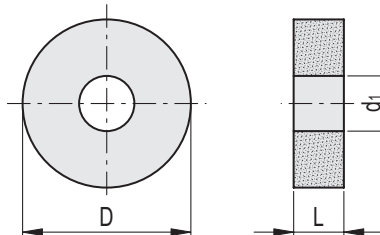
- malfunctioning and reduction of the machine lifespan and/or of the adjacent ones;
- damage to health;
- noise.

They are particularly suitable for use with thrusters, electromechanical equipment, industrial refrigerants, pipe supports, flooring and train carriage panelling.

See High performance vibration dampers - Characteristics and selection criteria (on page 2).



AVF-A



INOX  
STAINLESS  
STEEL

## AVF-A

| Code   | Description           | D ±4 | L ±4 | d1 ±4 | Min load [N] | Max load [N] | Min deflection [mm] | Max. deflection [mm] | ⚖️   |
|--------|-----------------------|------|------|-------|--------------|--------------|---------------------|----------------------|------|
| 480071 | AVF-42-10-100-A-16    | 42   | 10   | 16    | 300          | 1000         | 3                   | 4                    | 30   |
| 480051 | AVF-42-30-100-A-16    | 42   | 30   | 16    | 300          | 1000         | 8                   | 12                   | 60   |
| 480073 | AVF-42-10-250-A-16    | 42   | 10   | 16    | 300          | 2500         | 2                   | 3                    | 50   |
| 480053 | AVF-42-20-250-A-16    | 42   | 20   | 16    | 300          | 2500         | 4                   | 7                    | 60   |
| 480075 | AVF-67-10-800-A-40    | 67   | 10   | 40    | 1200         | 8000         | 2                   | 3                    | 70   |
| 480055 | AVF-67-20-800-A-40    | 67   | 20   | 40    | 1200         | 8000         | 3                   | 5                    | 140  |
| 480077 | AVF-67-10-2000-A-30   | 67   | 10   | 30    | 3000         | 20000        | 2                   | 3                    | 80   |
| 480057 | AVF-67-22-2000-A-30   | 67   | 22   | 30    | 3000         | 20000        | 5                   | 8                    | 190  |
| 480079 | AVF-98-12-4000-A-39   | 98   | 12   | 39    | 4000         | 40000        | 3                   | 5                    | 200  |
| 480059 | AVF-98-26-4000-A-39   | 98   | 26   | 39    | 4000         | 40000        | 6                   | 9                    | 410  |
| 480081 | AVF-150-15-6500-A-49  | 150  | 15   | 49    | 8000         | 65000        | 7                   | 9                    | 590  |
| 480061 | AVF-150-30-6500-A-49  | 150  | 30   | 49    | 8000         | 65000        | 8                   | 11                   | 950  |
| 480083 | AVF-183-15-9300-A-68  | 183  | 15   | 68    | 10000        | 93000        | 7                   | 9                    | 770  |
| 480063 | AVF-183-32-9300-A-68  | 183  | 32   | 68    | 10000        | 93000        | 9                   | 13                   | 1380 |
| 480065 | AVF-225-35-15000-A-46 | 225  | 35   | 46    | 20000        | 150000       | 12                  | 16                   | 2450 |

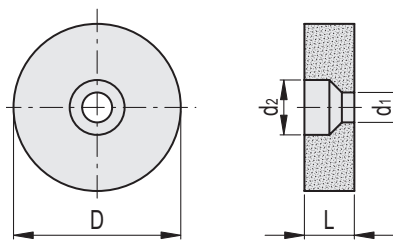
The min. load is the value below which the vibration damper is not able to isolate the vibrations as it would be too rigid.

The max load is the value beyond which some type of failure may occur that compromises the functionality of the vibration damper.

The min.deflection is the crushing of the vibration-damping support corresponding to the min. load.

The max.deflection is the crushing of the vibration-damping support corresponding to the max. load.

AVF-SH

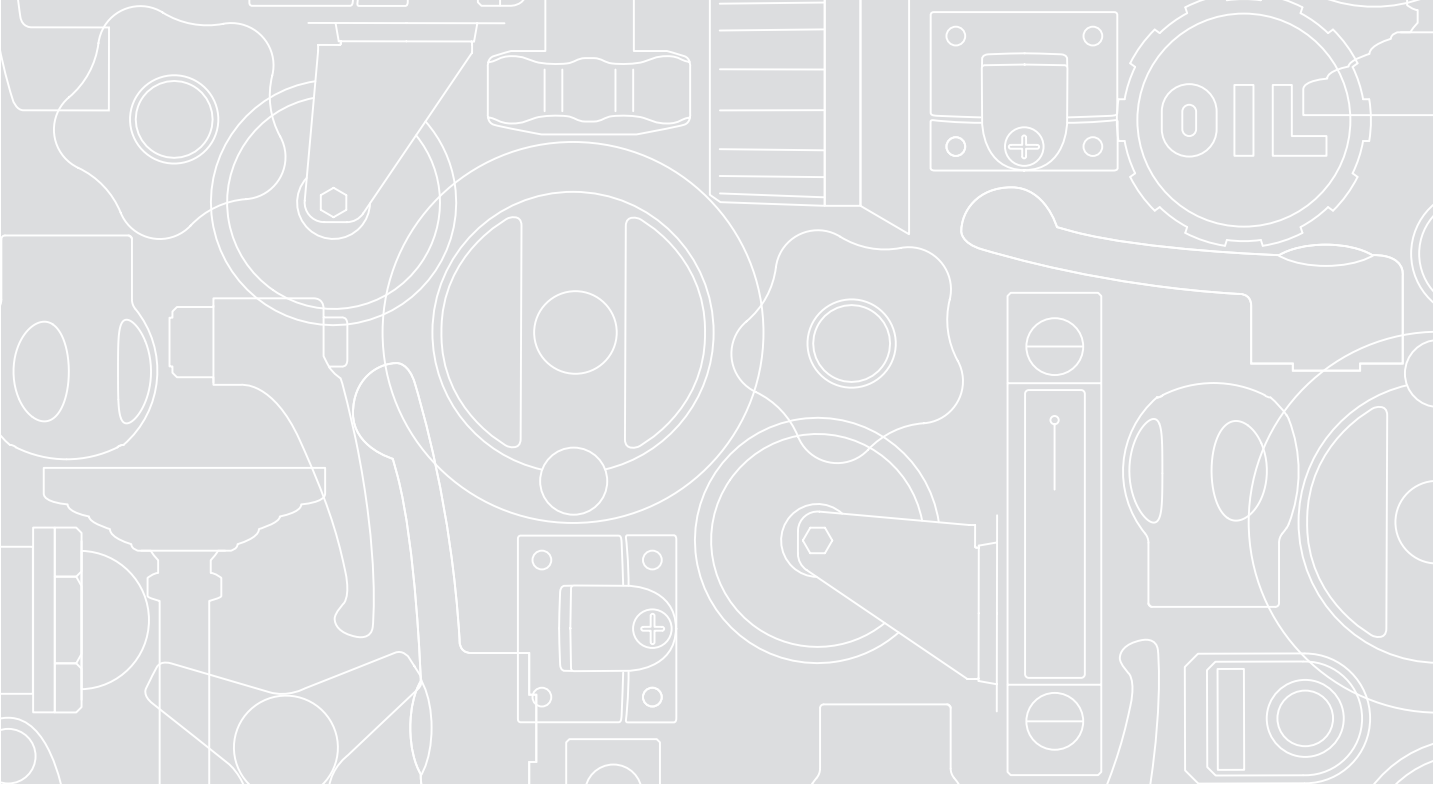


AVF-SH

INOX STAINLESS STEEL

| Code   | Description          | D ±4 | L ±4 | d1 ±4 | d2 ±4 | Min load [N] | Max load [N] | Min deflection [mm] | Max. deflection [mm] | ⚖   |
|--------|----------------------|------|------|-------|-------|--------------|--------------|---------------------|----------------------|-----|
| 480091 | AVF-42-30-100-SH-10  | 42   | 30   | 10    | 16    | 300          | 1000         | 6                   | 10                   | 60  |
| 480093 | AVF-42-20-250-SH-10  | 42   | 20   | 10    | 16    | 300          | 2500         | 2                   | 6                    | 60  |
| 480095 | AVF-67-20-800-SH-12  | 67   | 20   | 12    | 20    | 1200         | 8000         | 4                   | 7                    | 150 |
| 480097 | AVF-67-22-2000-SH-12 | 67   | 22   | 12    | 20    | 3000         | 20000        | 5                   | 8                    | 150 |
| 480099 | AVF-98-26-4000-SH-16 | 98   | 26   | 16    | 30    | 4000         | 40000        | 7                   | 10                   | 300 |

The min. load is the value below which the vibration damper is not able to isolate the vibrations as it would be too rigid.  
The max load is the value beyond which some type of failure may occur that compromises the functionality of the vibration damper.  
The min.deflection is the crushing of the vibration-damping support corresponding to the min. load.  
The max.deflection is the crushing of the vibration-damping support corresponding to the max. load.



**ELESA. More and more...**



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