

BM-100/IX

Second generation of HYBRID Dampers



SENIOR has developed a unique product
BM-100/IX

BM-100/IX; a damper in its most advanced form

To create this new range of dampers, we have needed a great dose of imagination and technological innovation. Rather than simply redesigning them, we have reinvented them inside and out, with a focus on elegance. The result is an incredible all-in-one damper, a work of art combined with a touch of engineering.

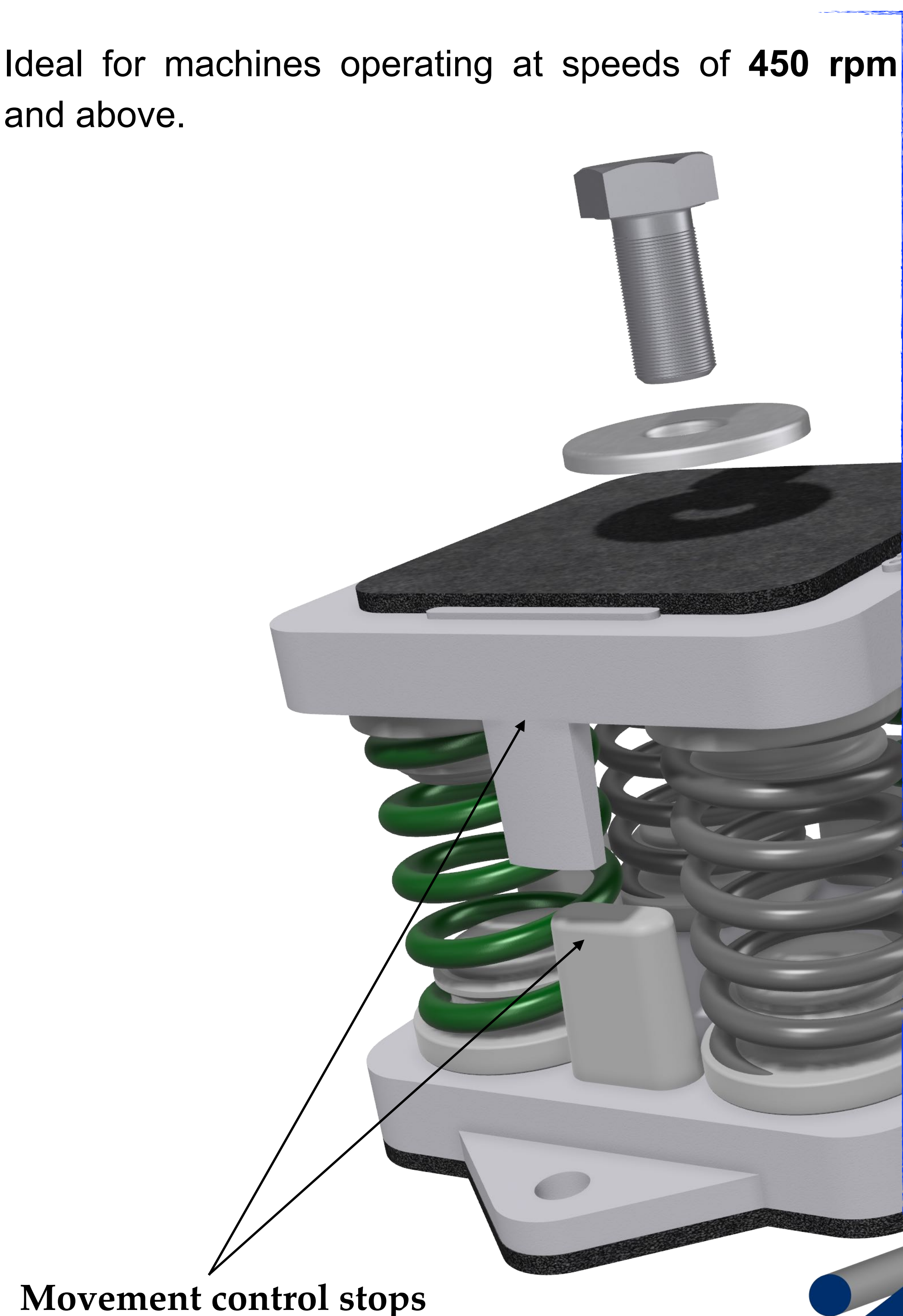
Movement stops

BM-100/IX; features 8 movement stabilisers, 4 at the bottom and another 4 at the top. Once the damper is activated, these stops act to limit the core's lateral and longitudinal movement, preventing sudden shifts when the equipment stops and starts.

These are second-generation hybrid dampers offering higher concentrated performance. Their composite structure combines the best of the properties of 'steel coil springs' with the damping capabilities of KRAIBURG-TPE TC3GPN polymer, in accordance with standard UNE-EN IXO 10846-1:2009.

The juxtaposition of these two components makes it possible to bring a unique damper to the market, thereby preventing the propagation of waves through the structure and reducing vibrations across the entire range of exciting frequencies.

Ideal for machines operating at speeds of 450 rpm and above.



Movement control stops



Ref.
BM-100/IX 150 G

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Material properties

Polymer *KRAIBURG-TPE TC3GPN*

Property	Method	Unit	Result
Density	DIN EN ISO 1183-1	g/cm3	1.100
Hardness	DIN ISO 7619-1	ShoreA	28
Traction resistance	DIN 53504/ISO 37	MPa	5.0
Resistance to tear	ISO 34-1 Methode B (b) (Graves)	N/mm	14.0
Elongation to break	DIN 53504/ISO 37	%	750
CS 72 h/23°C	DIN ISO 815-1 Method A	%	10
CS 24 h/70°C	DIN ISO 815-1 Method A	%	26
CS 24 h/100°C	DIN ISO 815-1 Method A	%	66

HELICOIDAL SYSTEM

	GREY HELICAL SPRING	GREEN HELICAL SPRING
Property	Value	Value
Wire diameter	4,0 mm	4,5 mm
Active coil	4,2	4,5
Exterior Diameter	34,40 mm	36 mm
Unloaded length	41,00 mm	40,50 mm
Preload	10,00 N	150 N
Applied load	200 N	450 N
Stiffness unit	17755	39703

+ A core comprising four steel springs manufactured in accordance with **Standard DIN 2095**, which provide significant damping at low frequencies.

Anti-corrosion treatment; the springs are finished with powder coating treated with Interpon **700** anti-corrosion treatment.

BM-100/IX 150 G; all screws are supplied in stainless steel.

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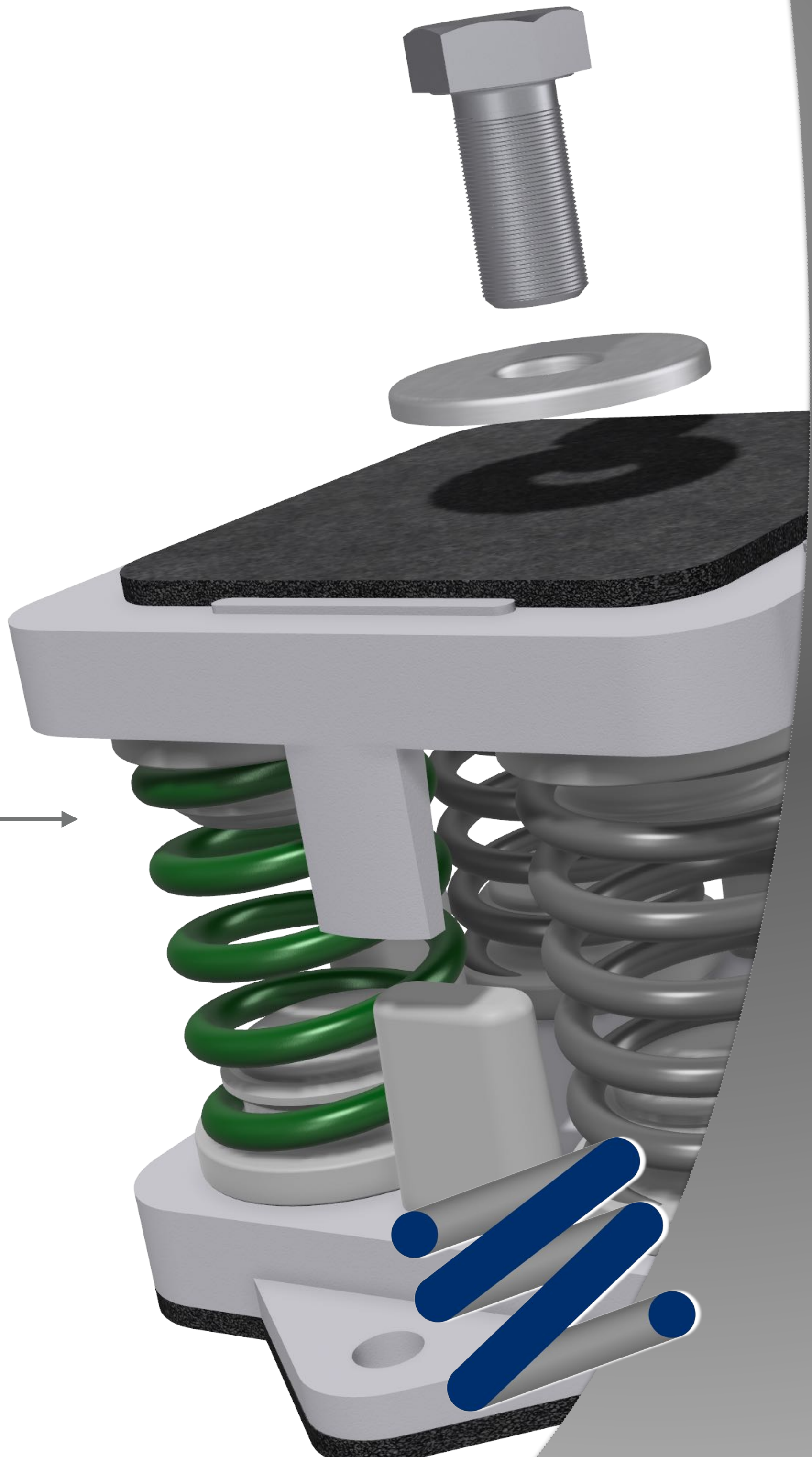
Material properties

← Manufactured from **ZAMAK-5** (an alloy of zinc, aluminium, magnesium and copper). It has high hardness, high traction resistance, a density of 6.6 g/cm³ and a melting point of 386°C, in **accordance with UNE-EN 12844**. Covered with **INTERPON 700** (epoxy and polyester resins) providing corrosion resistance of over **2000** hours in a salt environment.

Zamak-5

Property	Value
Density	2712,000 kg/m ³
Coefficient of thermal expansion	0,000023 /C
Thermal conductivity	0,221 kW/m-C
Specific heat	920,000 J/kg-C
Module of elasticity	68947,570 MPa
Poison ratio	0,330
Elastic limit	27,579 MPa
Tensile strength	68,948 MPa
Elongation %	0,000

Ref.
BM-100/IX 150G →





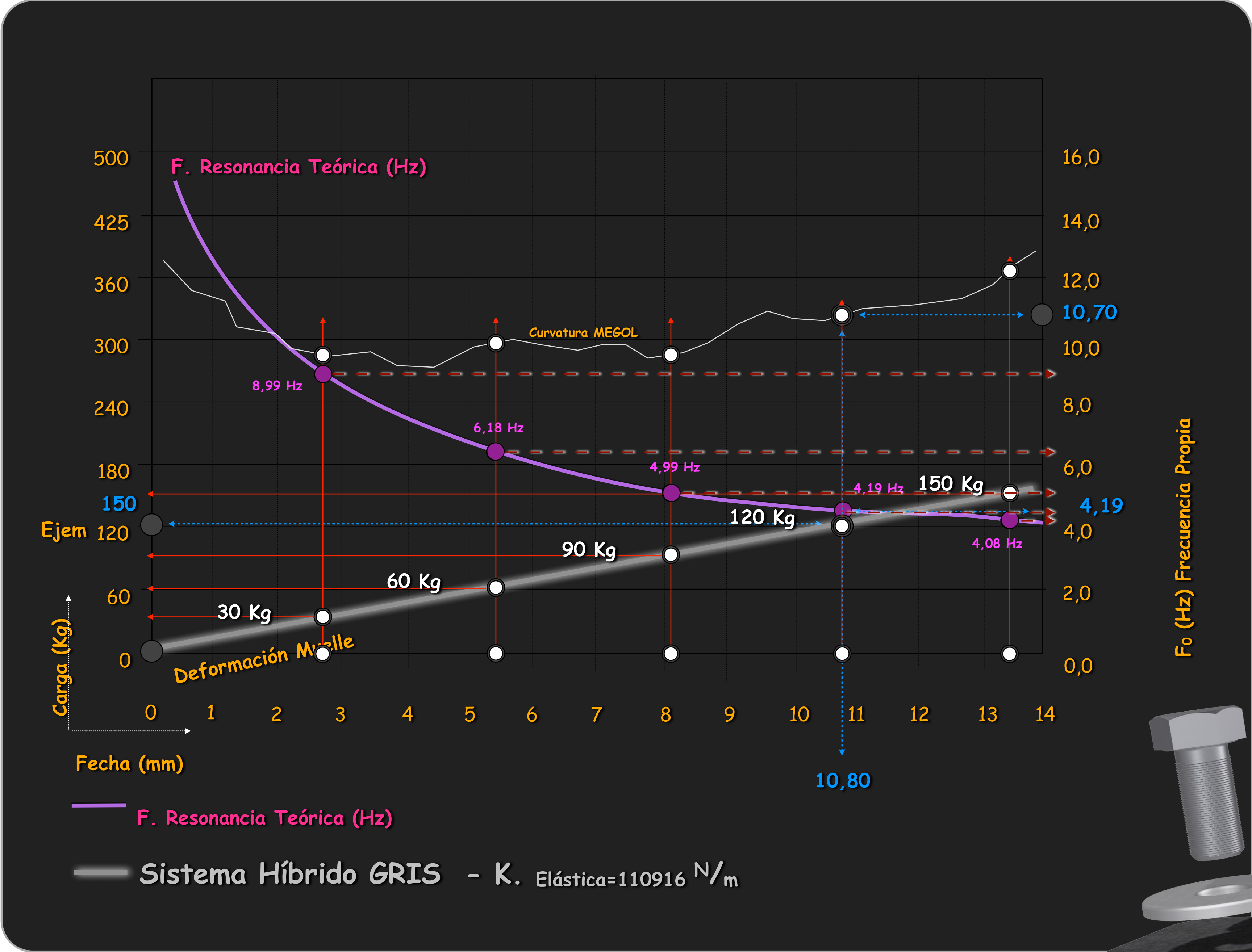
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Technical Specifications

Model Reference	Maximum Permissible Load (Kg)	Deflection (mm)	Spring Rate (KN/m)	Natural Frequency (Hz)*
SE-BM-100/IX 150G	150 kg	13,40	110,9	4,08

SENOR has developed this new range to mitigate this problem that arises in the welfare society in which we live. “Induced noise. Vibrations”

Graphic/Hybrid



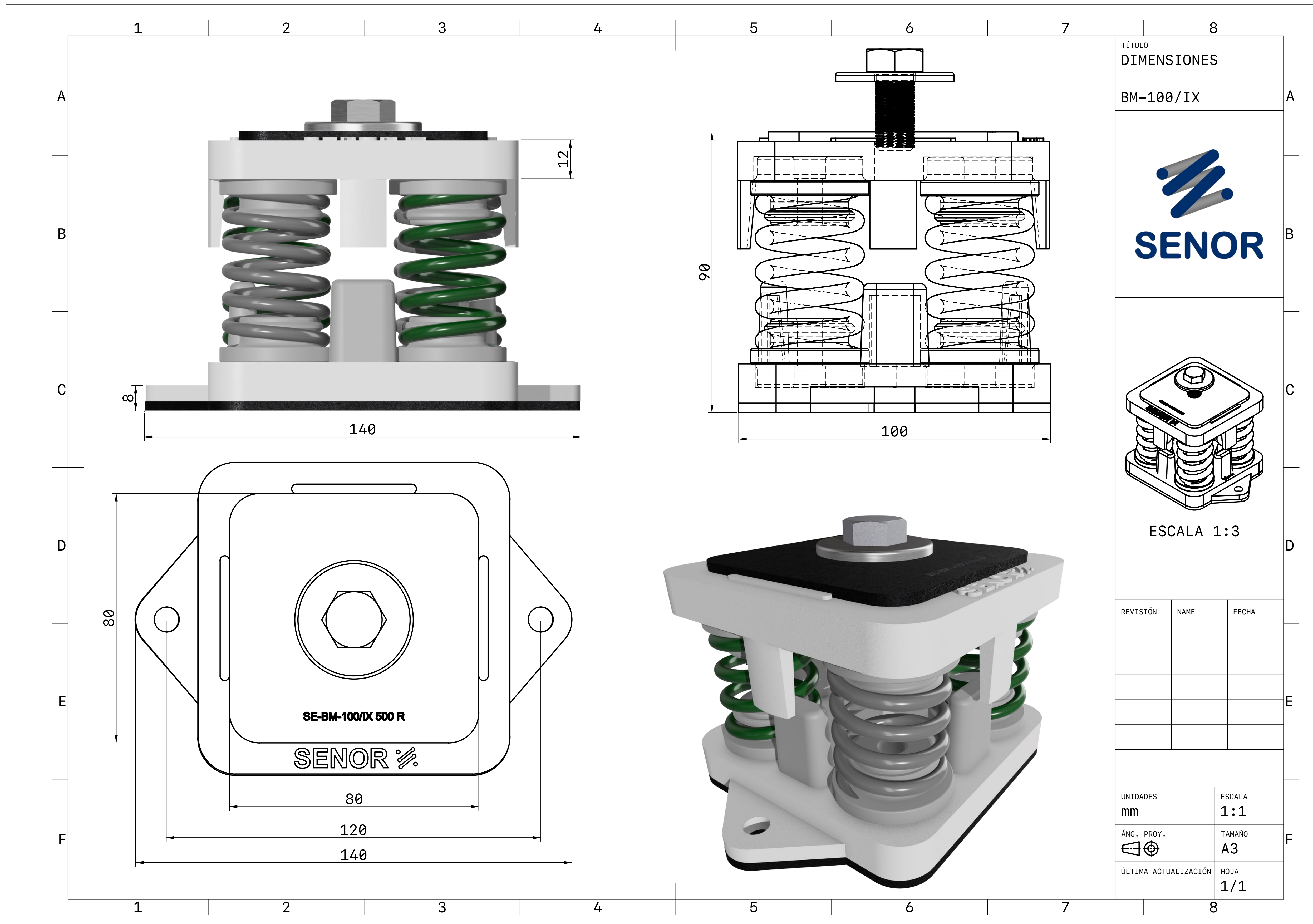
Maximum load

The own frequencies indicated are valid for maximum usage loads.

NOTE: level of acoustic insulation for a linear system with a single level of freedom (**pure vertical translation**) and a rigid support surface.



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• **SENOR Certifies.**

All our products in the **Industrial Range** for the support floor-mounted machines, specifically the **BM-100/IX** series, have an optimal service life of **10 years**. This applies provided they are installed under normal environmental conditions and are not exposed to chemicals that could damage the product.

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RELATED PRODUCTS



SE-BM-100/IX 150G

It is the simplest in the range.

It is a direct-support damper with a screw and washer fastening.

Available in different metric sizes.



SE-BM-100/IX EG 150

It is a damper that incorporates a stud, which allows for levelling thanks to the supplied nuts and washers.

Available in different metric sizes.

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SE-BM-100/IX RG 150

It is a damper which helps to support the equipment directly on top of it, with the advantage of being able to adjust its height to compensate for uneven surfaces.



SE-BM-100/IX REG 150

It is a damper which allows you to rest the equipment on its adjustable base to correct unevenness, and secure the equipment thanks to the incorporated rod.

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RELATED PRODUCTS



SE-BM-100/IX RG 150 + PT1

It allows the HVAC units to be supported without the need for screws. It comes equipped with a central locking system to secure the equipment and an adjustable base to correct unevenness.



SE-BM-100/IX RG 150 + PT2

It allows the HVAC units to be supported without the need for screws. It incorporates a double locking system to secure the equipment (at its corners) and an adjustable base to correct unevenness.

For further information on this product range, please visit our website.

<https://senor.es/en/industry-range/industrial-machines-spring-dampers/bm-100-ix/>



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