

CONSTRUCTION Catalogue

HYBRID HANGER WITH
DIRECT FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

PATENTED

SEÑOR

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. **SE-MSN-90 V 45**



MSN-90 V 45 is more than a hanger.

It is an acoustic hanger with fast adjustment to first profile **C** o **STUD**. The profile is fixed with a simple gesture making him an **innovative** and **unique product**.

We use the latest technology in the production such as: renovated polymers (**KRAIBURG-TPE**) tested according to **UNE-EN ISO 10846-1:2009** and placed in the sides on the steel spiral. The steel spring is manufactured according to **DIN 2095 UNE EN 10270**, with **GREEN EPOXY** treatment.

Introduction

A **DIFFERENT** and **PROFESSIONAL** hanger.

Higher performance in the least space. They are **HYBRID** hangers with locking stops (**ID**) and a perfect installation to profiles **C** or **STUD**.

MSN-90 V 45 is manufactured with high performance and renovated raw material providing improvements in the vibro-acoustic field.





CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45



PATENTED

ACOUSTIC / HYBRID Ceiling

STEEL SPRING: it provides a high level of isolation to vibrations in the range of **low/medium** frequencies (Hz).

RENOVATED POLYMERS: they have a better damping factor and a higher degree of isolation to vibration in the range of **medium/high frequencies** (Hz).

COMBINATION: the combination makes possible launch onto the market the best hanger of the moment and reduce the vibrations in the range of **exciter frequencies**.

It is available in several metrics: 6, 8 and 10.

LOAD RANGE (KG)

It is recommended to loads between **15 kg** and **45 kg** of maximum load.
(Strongly recommended not to exceed this limit in order to prevent overstressing the polymer).

RESONANCE frequency: 3-7 Hz.

CONSTRUCTION Catalogue

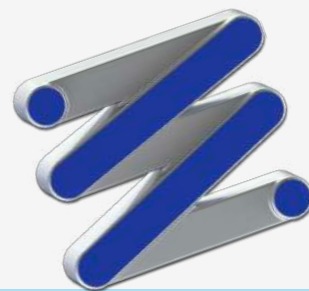
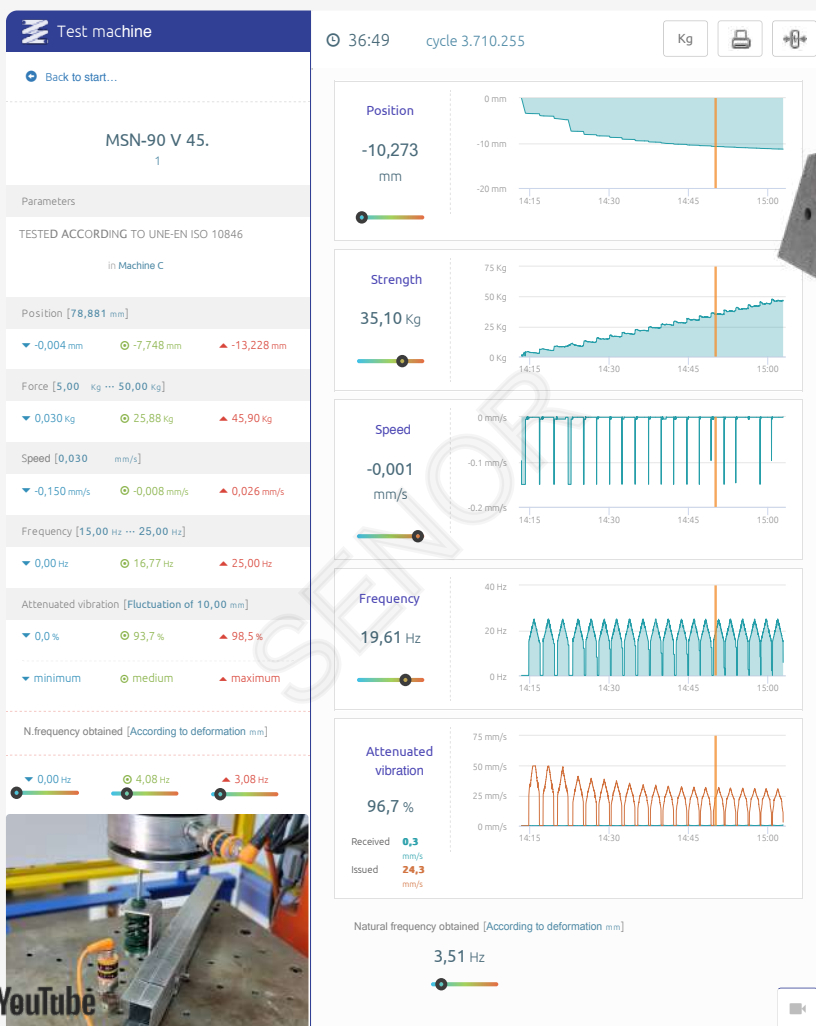
HYBRID HANGER WITH DIRECT FASTENING TO C PROFILES or STUD

Ref. SE-MSN-90 V 45

LABORATORY Test. UNE-EN ISO 10846-1:2009

Acoustic and vibration. Measurement in the laboratory of vibro-acoustic transfer properties of elastic elements.

Manufacturer of **ANTIVIBRATION** systems





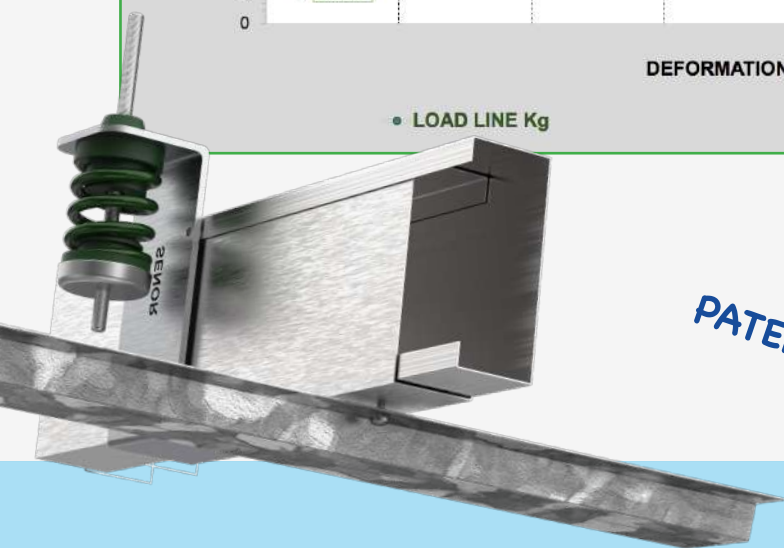
HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

LABORATORY RESULTS

Chart 1

ACOUSTIC / HYBRID Ceiling



PATENTED

GREEN RUBBER & SPRING:
Available references

- 1º- SE-MSN-90 V 45/M6.
- 2º- SE-MSN-90 V 45/M8.
- 3º- SE-MSN-90 V 45/M10.

CONSTRUCTION Catalogue

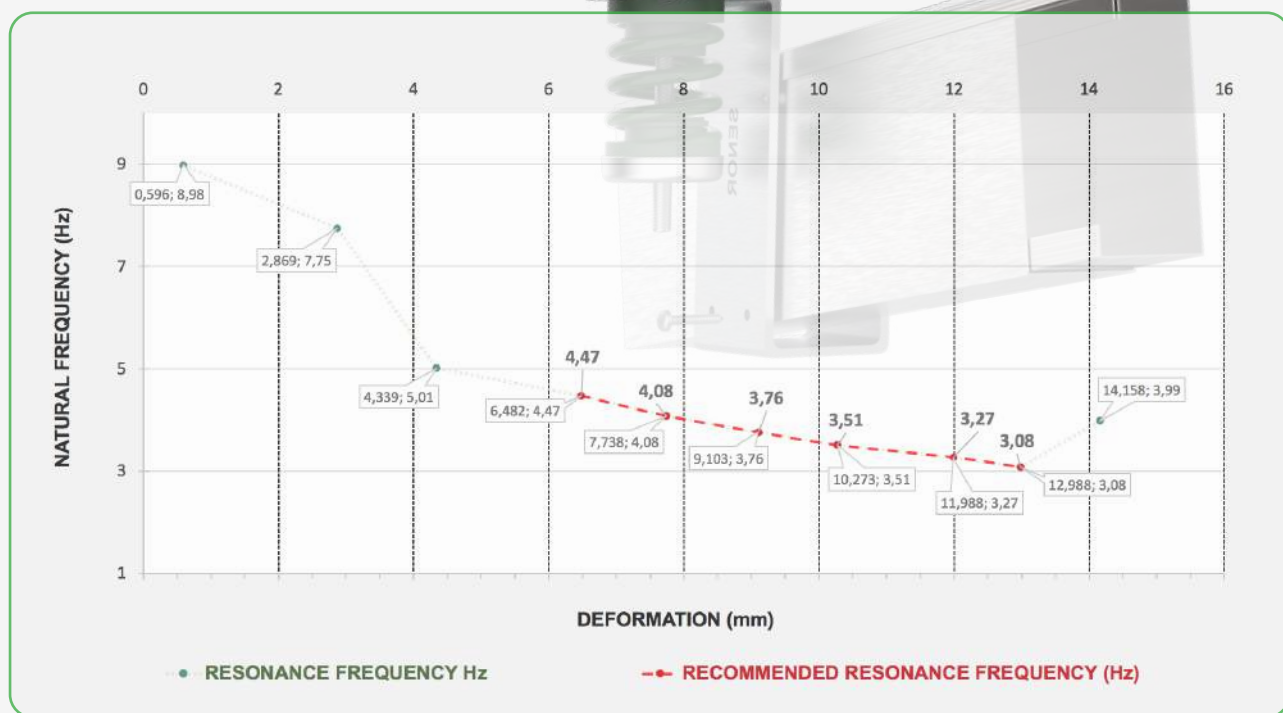
HYBRID HANGER WITH DIRECT FASTENING TO C PROFILES or STUD

Ref. SE-MSN-90 V 45

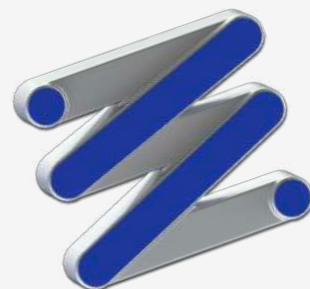
PATENTED

ACOUSTIC / HYBRID Ceiling

Chart 2



Ref. SE-MSN-90 V



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CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

LABORATORY RESULTS

Chart 3

ACOUSTIC / HYBRID Ceiling



Ref. SE-MSN-90 V
PATENTED



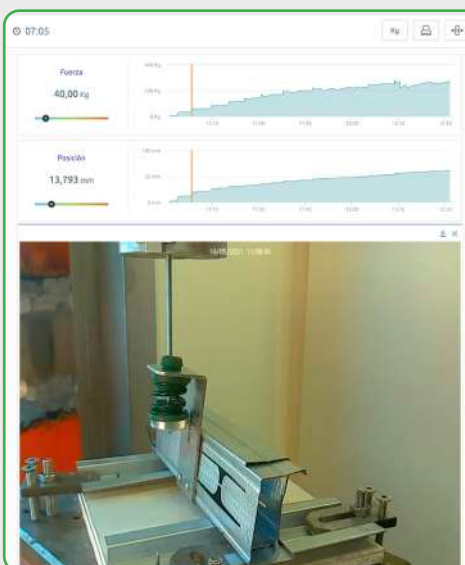


CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

Mechanical test LABORATORY



Test layout: 40 kg

MSN-90 V 45

In this test, the hanger is subjected to load inside the parameters designed to the product.

Ref. SE-MSN-90 V

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Test layout: 154,6 kg

MSN-90 V 45

In this test, the hanger is subjected to load out of the parameters designed to the product.

We can see steel spring and polymers very compressed.



Test layout: 268,3 kg

MSN-90 V 45

Failure mode.
The components are deformed and the profiles are twisted reaching its elastic limit.

CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

MSN-90 V 45

Failure mode.

The elastic limit of the component is reached at **268 kg**.

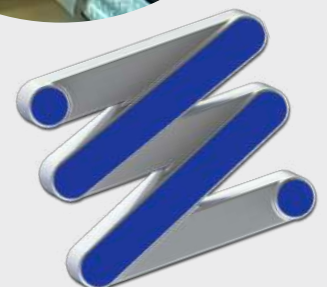
The burst test is concluded.



Manufacturer of **ANTIVIBRATION** systems



*SENOR Aisladores Acústicos



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HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

Certificate of Compliance



SEÑOR certifies:

The **MSN-90 model** in the construction range for the suspension of low acoustic false ceilings under slab has an **optimal lifespan of 10 years** provided that the installation is carried out under **ordinary environmental conditions** and are not exposed to chemical components that could degrade the product. The MSN-90 model strictly complies with **UNE** (Spanish Association for Standardization) **UNE 100-153-88**: air conditioning: vibration insulators: design criteria.

SEÑOR declares under its responsibility that the following components for suspended ceiling in buildings strictly complies with the technical sections of installation mentioned in the technical documentation of the product.

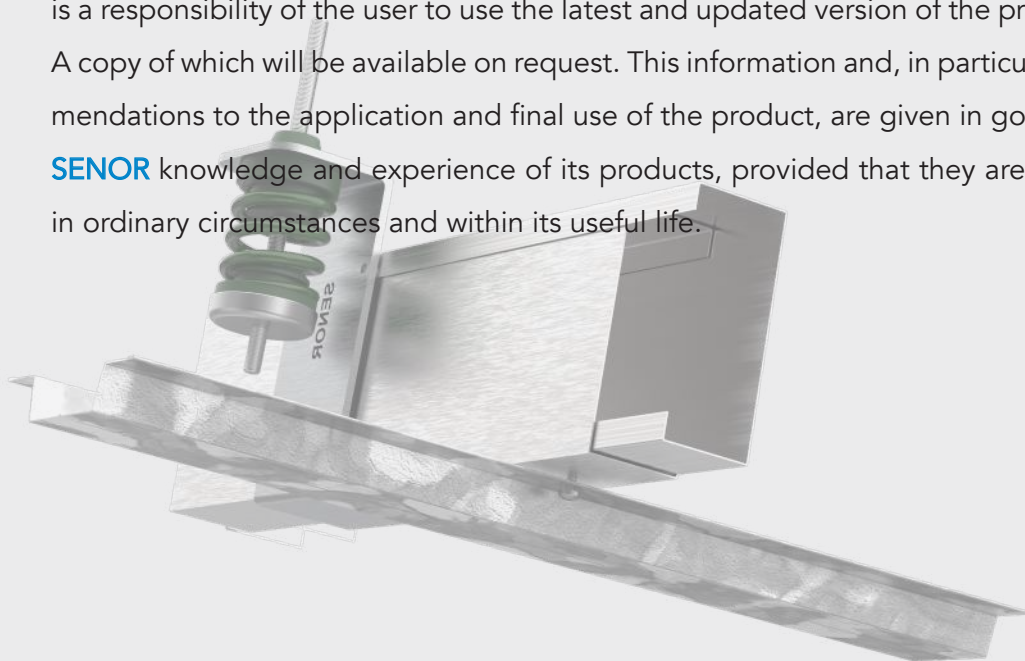
HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 V 45

Warning

Relevant information

SENOR reserves the right to make changes in specifications at any time without prior notice. It is a responsibility of the user to use the latest and updated version of the product data sheets. A copy of which will be available on request. This information and, in particular, relative recommendations to the application and final use of the product, are given in good faith, based on **SENOR** knowledge and experience of its products, provided that they are correctly installed in ordinary circumstances and within its useful life.



Ref. SE-MSN-90 V

PATENTED



CONSTRUCTION Catalogue

HYBRID HANGER WITH
DIRECT FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

Patented

SENOR

CONSTRUCTION Catalogue

HYBRID HANGER WITH DIRECT FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

Introduction

A **DIFFERENT** and **PROFESSIONAL** hanger.

Higher performance in the least space.
They are **HYBRID** hangers with locking stops (**ID**)
and a perfect installation to profiles **C** or **STUD**.

MSN-90 A 75 is manufactured with high
performance and renovated raw material
providing improvements in
the vibro-acoustic field.

Patented

MSN-90 A 75 is more than a hanger.
It is an acoustic hanger with fast adjustment to
first profile **C** o **STUD**. The profile is fixed with a
simple gesture making him an **innovative** and
unique product.

We use the latest technology in the production
such as: renovated polymers (**KRAIBURG-TPE**)
tested according to standard **UNE-EN ISO**
10846-1:2009 and placed in the sides on the
steel spiral.

The steel spring is manufactured according to
DIN 2095 UNE EN 10270, with **BLUE EPOXY**
treatment.

Manufacturer of **ANTIVIBRATION** systems



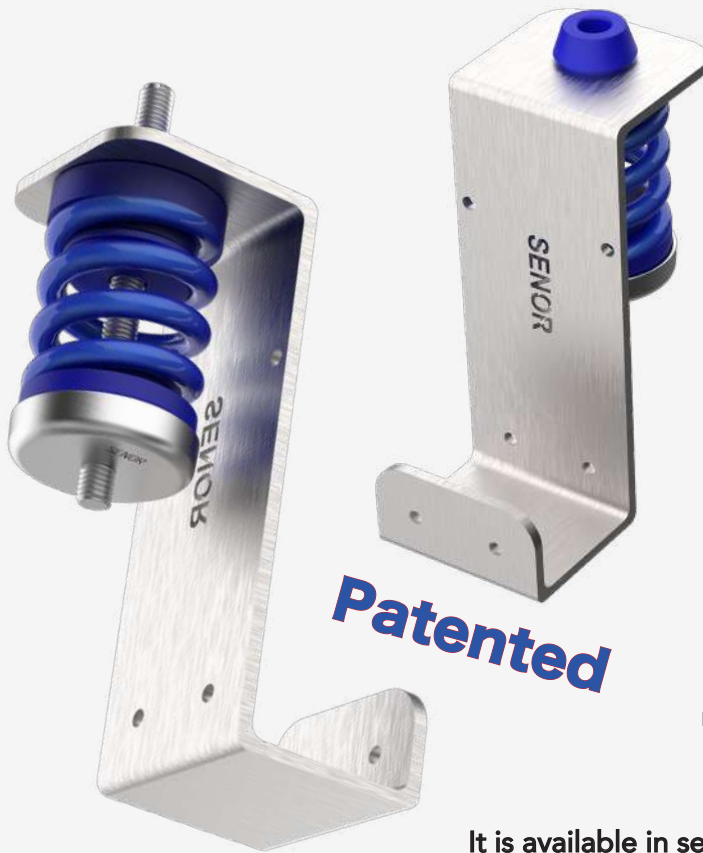
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CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75



ACOUSTIC / HYBRID Ceiling

STEEL SPRING: it provides a high level of isolation to vibrations in the range of **low/medium** frequencies (Hz).

RENOVATED POLYMERS: they have a better damping factor and a higher degree of isolation to vibration in the range of **medium/high frequencies** (Hz).

COMBINATION: the combination makes possible launch onto the market the best hanger of the moment and reduce the vibrations in the range of **exciter frequencies**.

It is available in several metrics: 6, 8 and 10.

LOAD RANGE (KG)

It is recommended to loads between **30 kg** and **75 kg** of maximum load.
(Strongly recommended not to exceed this limit in order to prevent overstressing the polymer).

RESONANCE frequency: 3-7 Hz.

CONSTRUCTION Catalogue

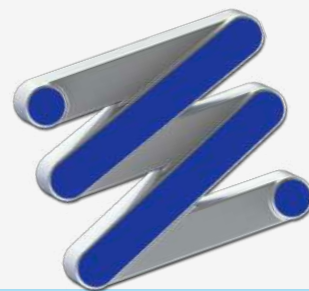
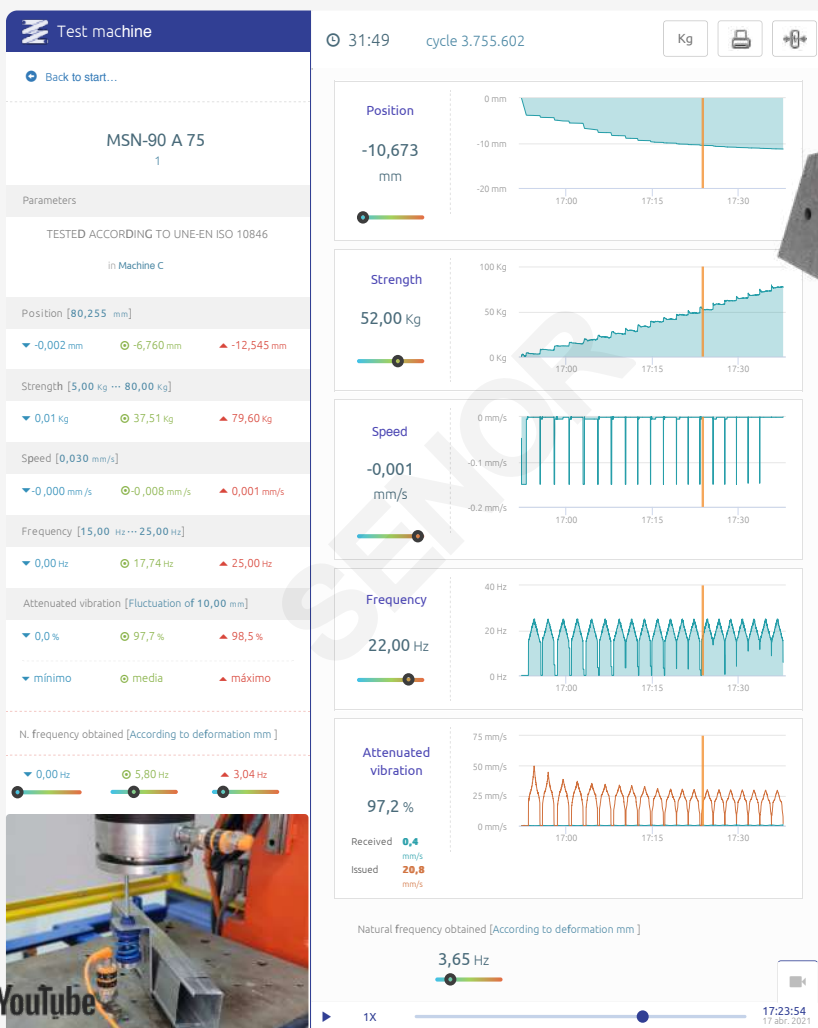
HYBRID HANGER WITH DIRECT FASTENING TO C PROFILES or STUD

Ref. SE-MSN-90 A 75

Laboratory tests carried out according to UNE-EN ISO 10846-1:2009

Acoustic and vibration. Measurement in the laboratory of vibro-acoustic transfer properties of elastic elements.

Manufacturer of **ANTIVIBRATION** systems





HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

LABORATORY RESULTS

Chart 1

ACOUSTIC / HYBRID Ceiling



Patented

BLUE RUBBER & SPRING:

Available references

1° SE-MSN-90 A 75/M6.

2° SE-MSN-90 A 75/M8.

3° SE-MSN-90 A 75/M10.

CONSTRUCTION Catalogue

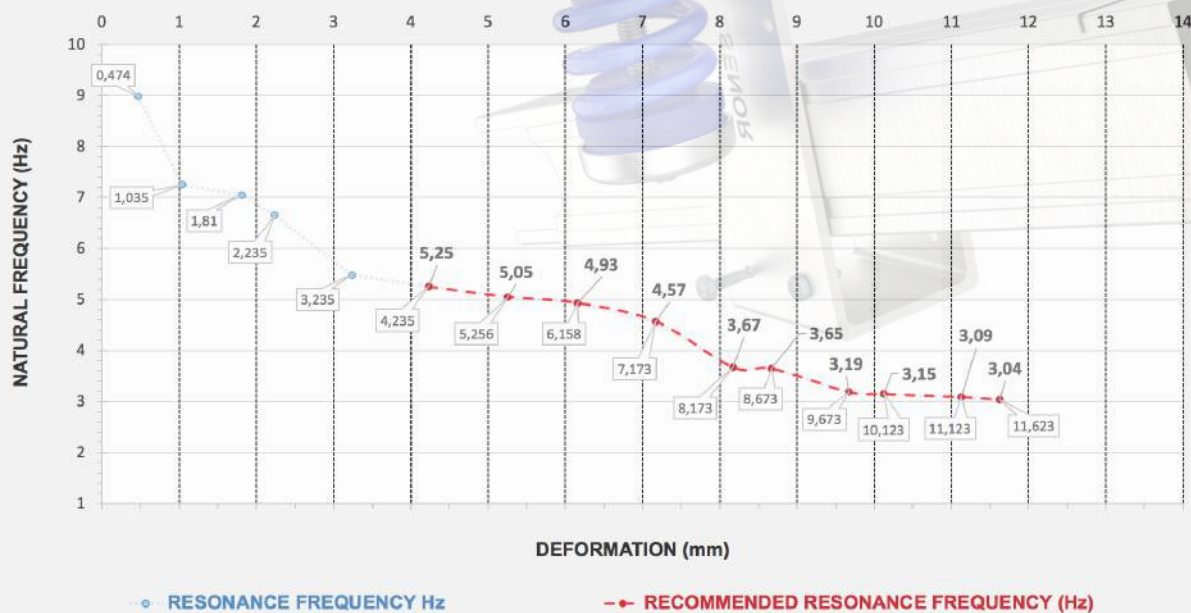
HYBRID HANGER WITH DIRECT FASTENING TO C PROFILES or STUD

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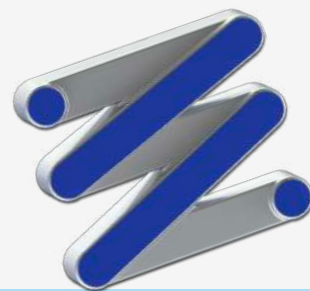
Patented

ACOUSTIC / HYBRID Ceiling

Chart 2



Ref. SE-MSN-90 A 75



*SENOR Aisladores Acústicos

SENOR



HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

LABORATORY RESULTS

Chart 3

ACOUSTIC / HYBRID Ceiling



Patented



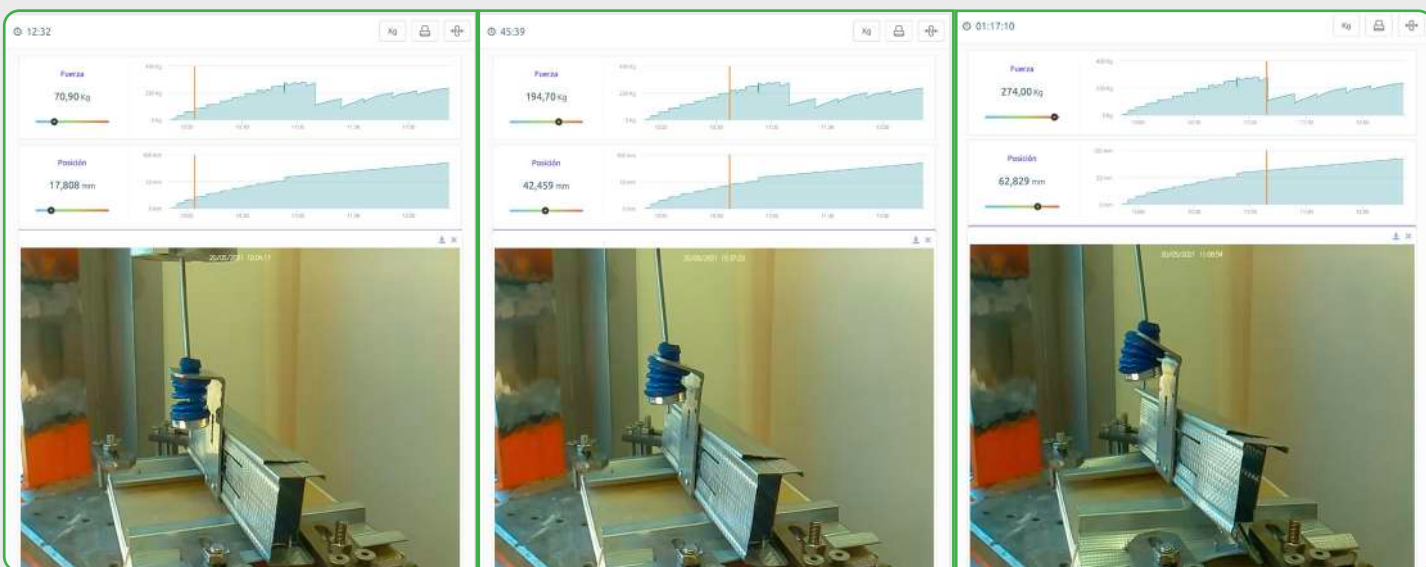


CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

Mechanical test LABORATORY



Test layout: 70,9 kg

MSN-90 A 75

In this test, the hanger is subjected to load inside the parameters designed to the product.

Ref. SE-MSN-90 A 75
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Test layout: 194,7 kg

MSN-90 A 75

In this test, the hanger is subjected to load out of the parameters designed to the product.

We can see steel spring and polymers very compressed.

Test layout: 274,0 kg

MSN-90 A 75

Failure mode.
The components are deformed and the profiles are twisted reaching its elastic limit.

CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

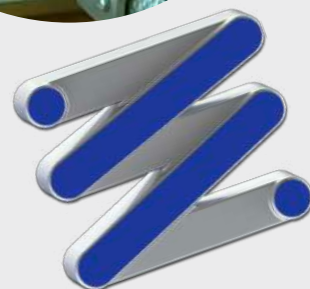
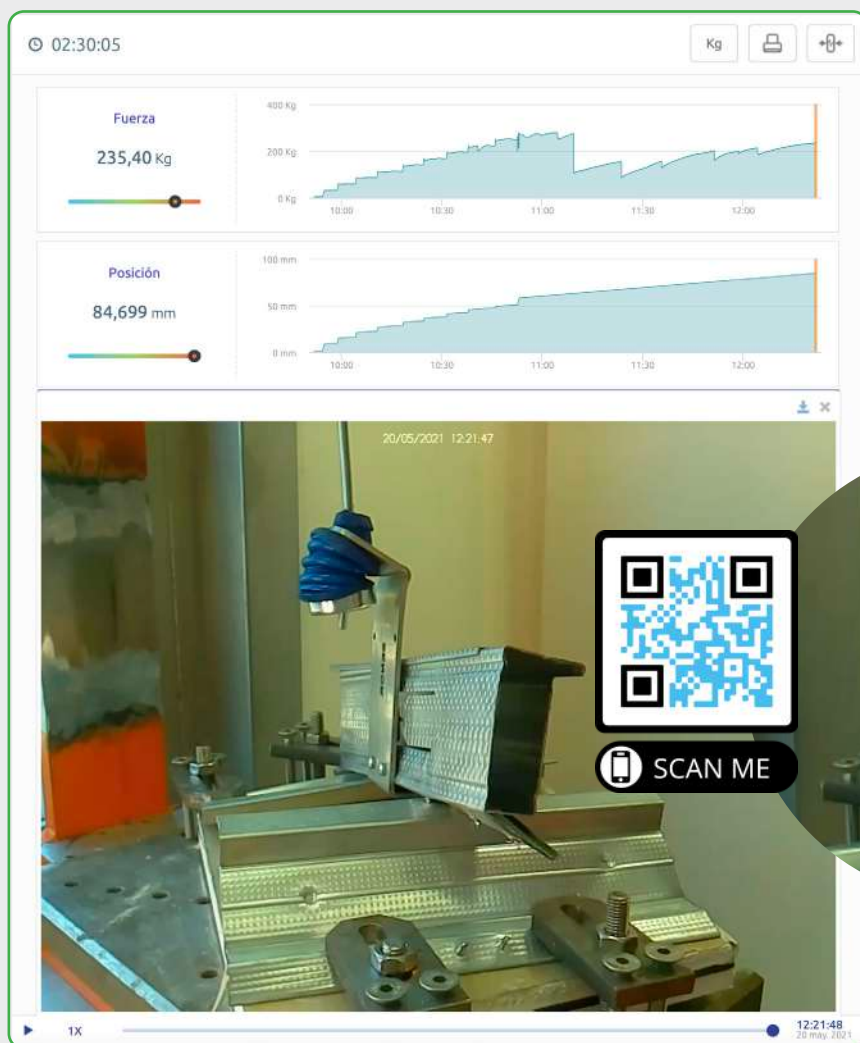
Ref. **SE-MSN-90 A 75**

MSN-90 A 75

Failure mode.

The elastic limit of the component is reached at **274 kg**.

The burst test is concluded.



SEÑOR

Manufacturer of **ANTIVIBRATION** systems



*SEÑOR Aisladores Acústicos



HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

Certificate of Compliance



SEÑOR certifies:

The **MSN-90 model** in the construction range for the suspension of low acoustic false ceilings under slab has an **optimal lifespan of 10 years** provided that the installation is carried out under **ordinary environmental conditions** and are not exposed to chemical components that could degrade the product. The **MSN-90 model** strictly complies with **UNE** (Spanish Association for Standardization) **UNE 100-153-88**: air conditioning: vibration insulators: design criteria.

SEÑOR declares under its responsibility that the following components for suspended ceiling in buildings strictly complies with the technical sections of installation mentioned in the technical documentation of the product.

CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 A 75

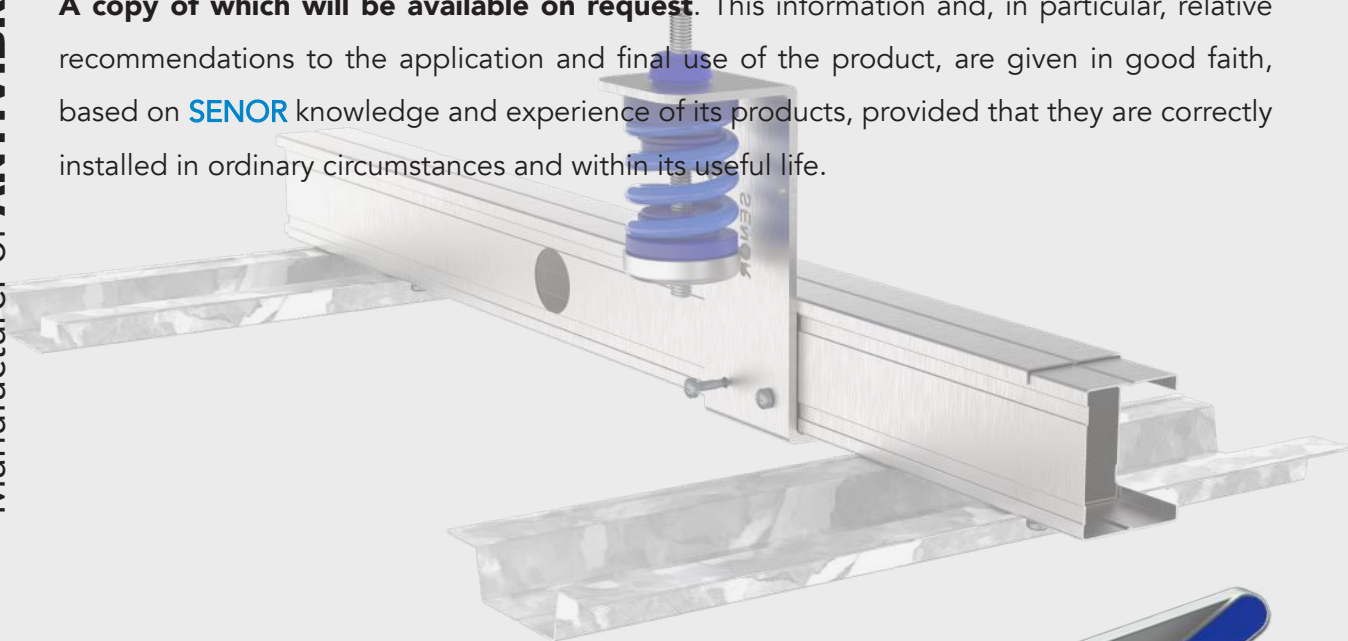
Manufacturer of **ANTIVIBRATION** systems

Warning

Relevant information

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A copy of which will be available on request. This information and, in particular, relative recommendations to the application and final use of the product, are given in good faith, based on **SENOR** knowledge and experience of its products, provided that they are correctly installed in ordinary circumstances and within its useful life.

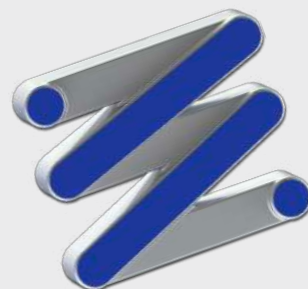


Ref. SE-MSN-90 A 75

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CONSTRUCTION Catalogue

HYBRID HANGER WITH
DIRECT FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 R 120

SE-MSN-90 R 120
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HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. **SE-MSN-90 R 120**



Patented

MSN-90 R 120 is more than a hanger. It is an acoustic hanger with fast adjustment to first profile **C** or **STUD**. The profile is fixed with a simple gesture making him an innovative and unique product.

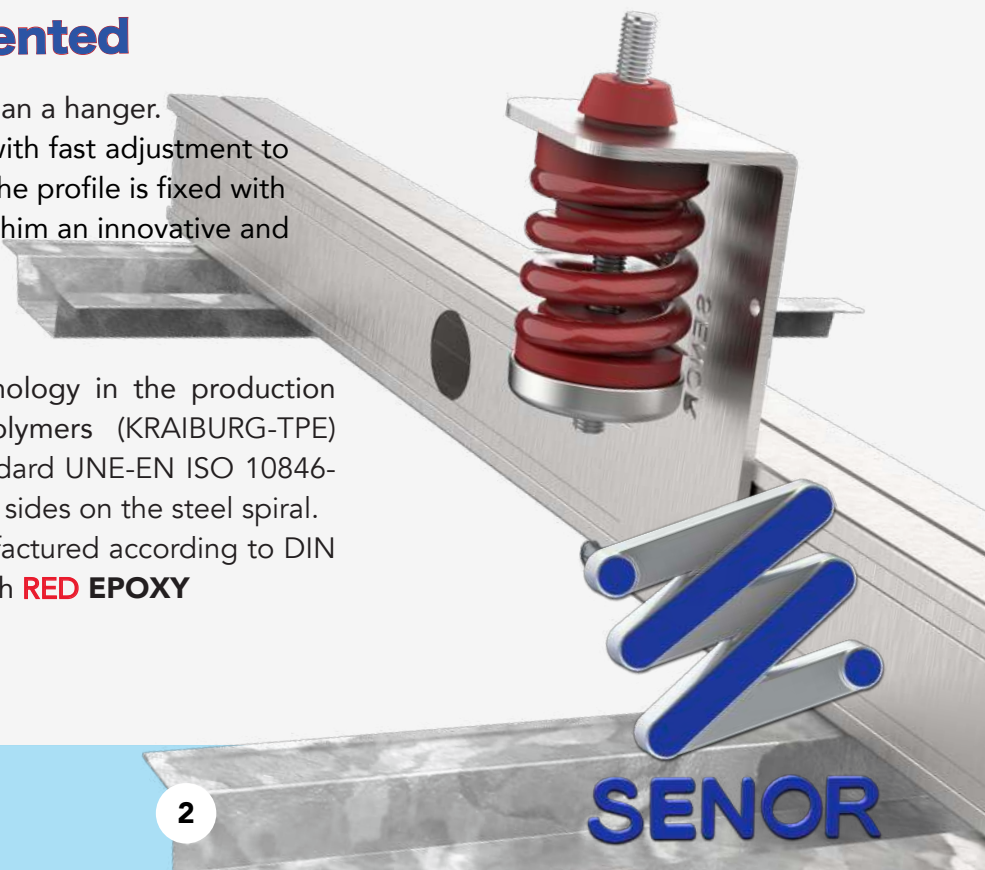
We use the latest technology in the production such as: renovated polymers (KRAIBURG-TPE) tested according to standard UNE-EN ISO 10846-1:2009 and placed in the sides on the steel spiral. The steel spring is manufactured according to DIN 2095 UNE EN 10270, with **RED EPOXY** treatment.

Introduction

A **DIFFERENT** and **PROFESSIONAL** hanger.

Higher performance in the least space. They are **HYBRID** hangers with locking stops (**ID**) and a perfect installation to profiles **C** or **STUD**.

MSN-90 R 120 is manufactured with high performance and renovated raw material providing improvements in the vibro-acoustic field.

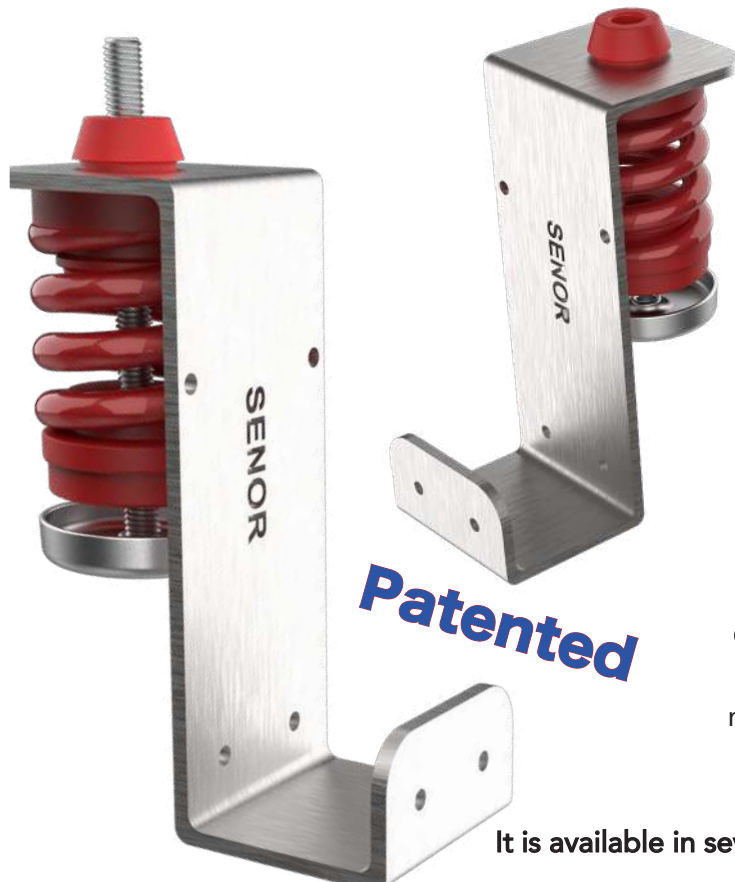




CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 R 120



ACOUSTIC / HYBRID Ceiling

STEEL SPRING: it provides a high level of insulation to vibrations in the range of **low/medium** frequencies (Hz).

RENOVATED POLYMERS: they have a better damping factor and a higher degree of insulation to vibration in the range of **medium/high** frequencies (Hz).

COMBINATION: the combination makes possible launch onto the market the best hanger of the moment and reduce the vibrations in the range of exciter frequencies.

It is available in several metrics: 6, 8 and 10.

LOAD RANGE (KG)

It is recommended to loads between **30 kg** and **75 kg** of maximum load.
(Strongly recommended not to exceed this limit in order to prevent overstressing the polymer).

RESONANCE frequency: 3-7 Hz.

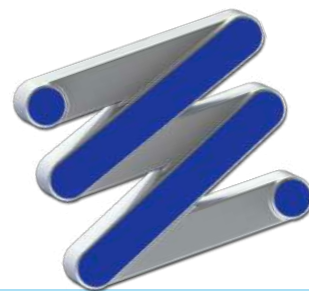
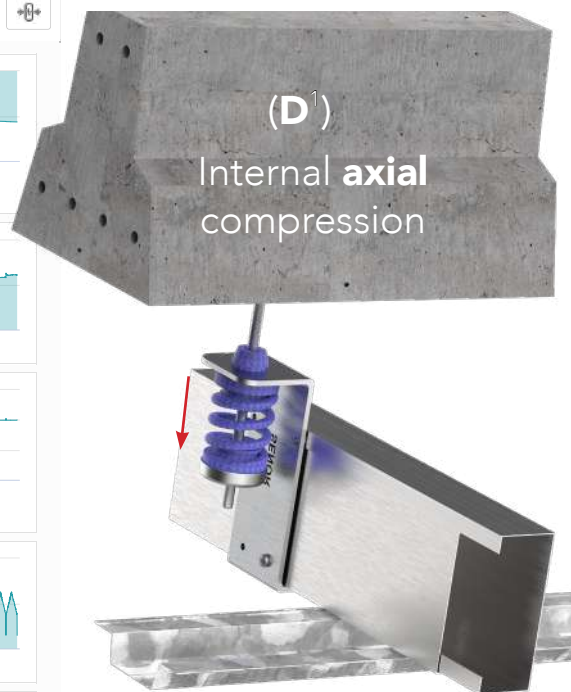
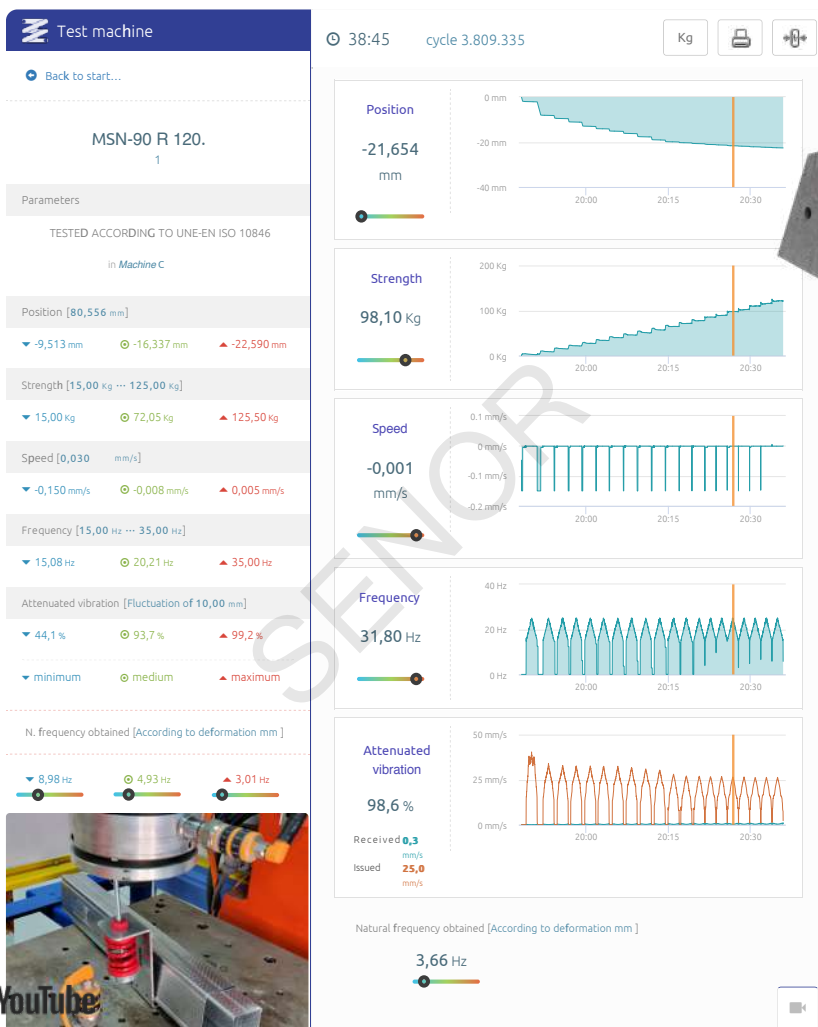
HYBRID HANGER WITH DIRECT FASTENING TO C PROFILES or STUD

Ref. SE-MSN-90 R 120

Laboratory tests carried out according to UNE-EN ISO 10846-1:2009

Acoustic and vibration. Measurement in the laboratory of vibro-acoustic transfer properties of elastic elements.

Manufacturer of **ANTIVIBRATION** systems





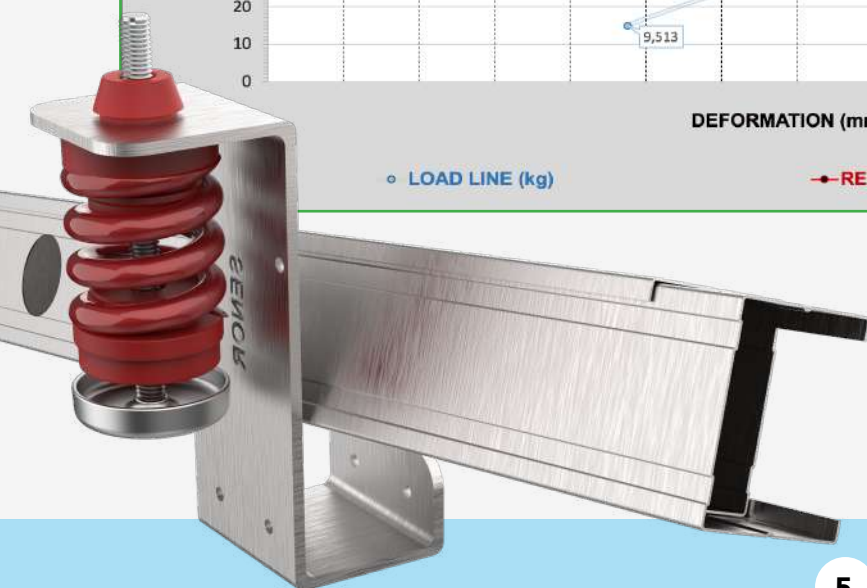
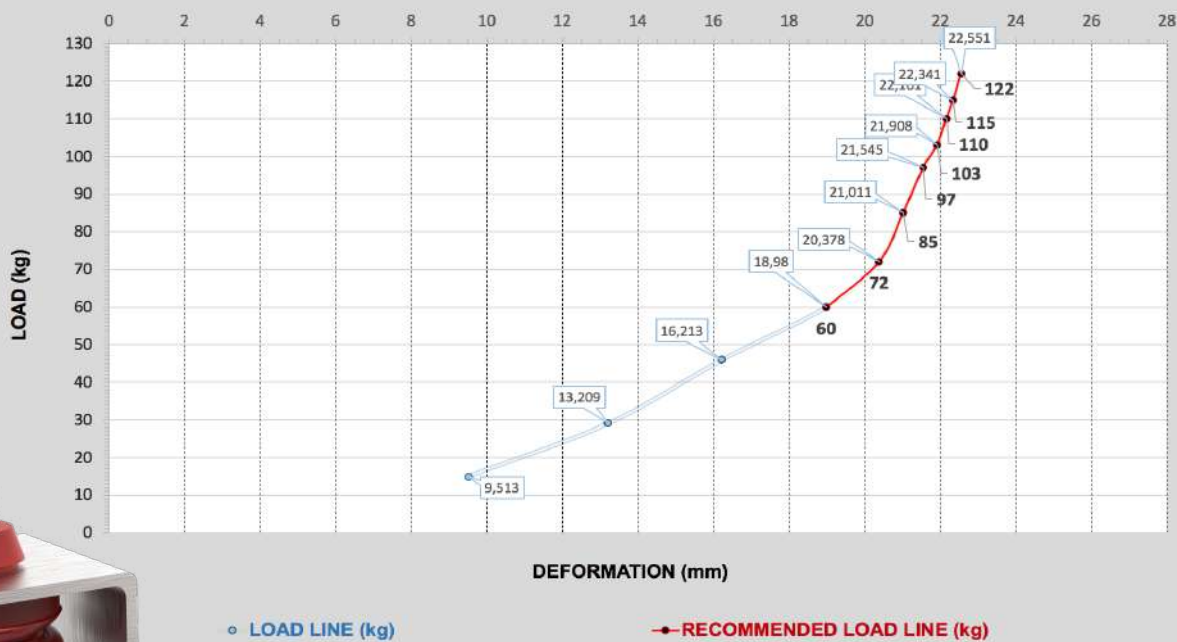
HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 R 120

LABORATORY RESULTS

Chart 1

ACOUSTIC / HYBRID Ceiling



RED RUBBER & SPRING:
Available references

- 1°- SE-MSN-90 R 120/M6.
- 2°- **SE-MSN-90 R 120/M8.**
- 3°- SE-MSN-90 R 120/M10.

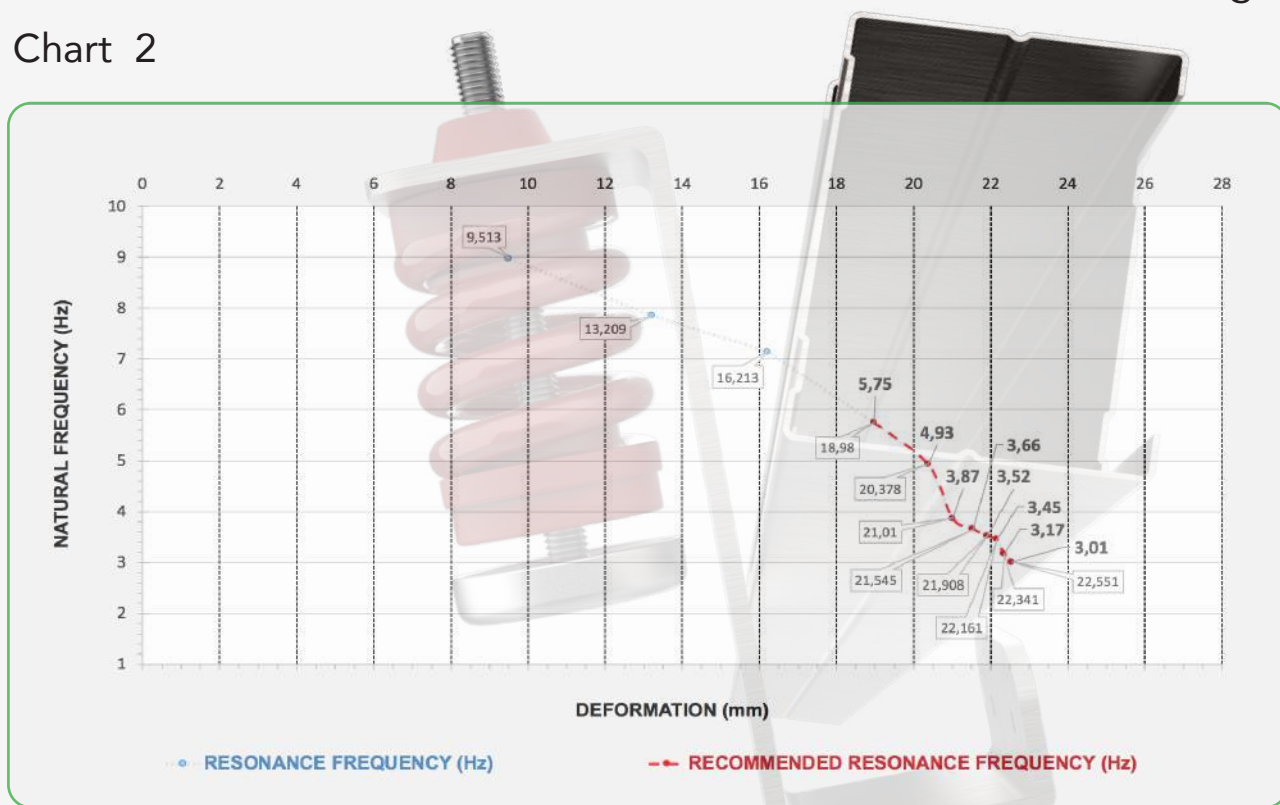
CONSTRUCTION Catalogue

HYBRID HANGER WITH DIRECT FASTENING TO C PROFILES or STUD

Ref. SE-MSN-90 R 120

ACOUSTIC / HYBRID Ceiling

Chart 2



Ref. SE-MSN-90 R 120
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CONSTRUCTION Catalogue

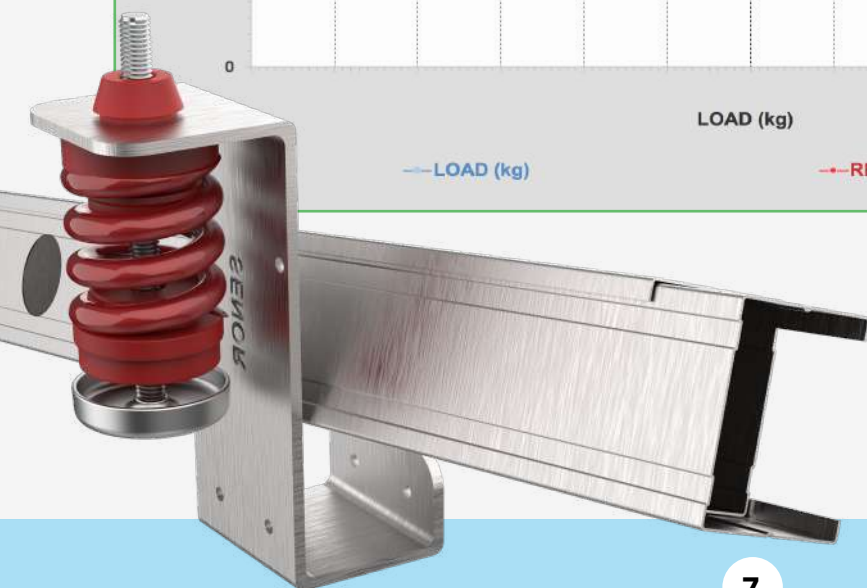
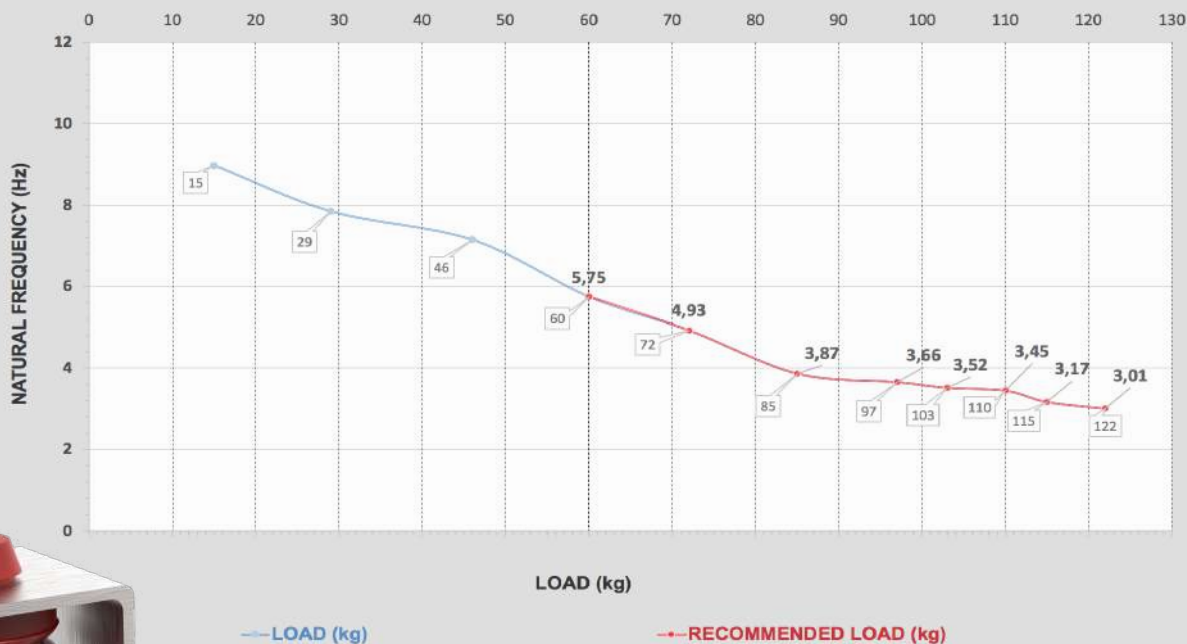
HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 R 120

LABORATORY RESULTS

Chart 3

ACOUSTIC / HYBRID Ceiling



Ref. SE-MSN-90 R 120
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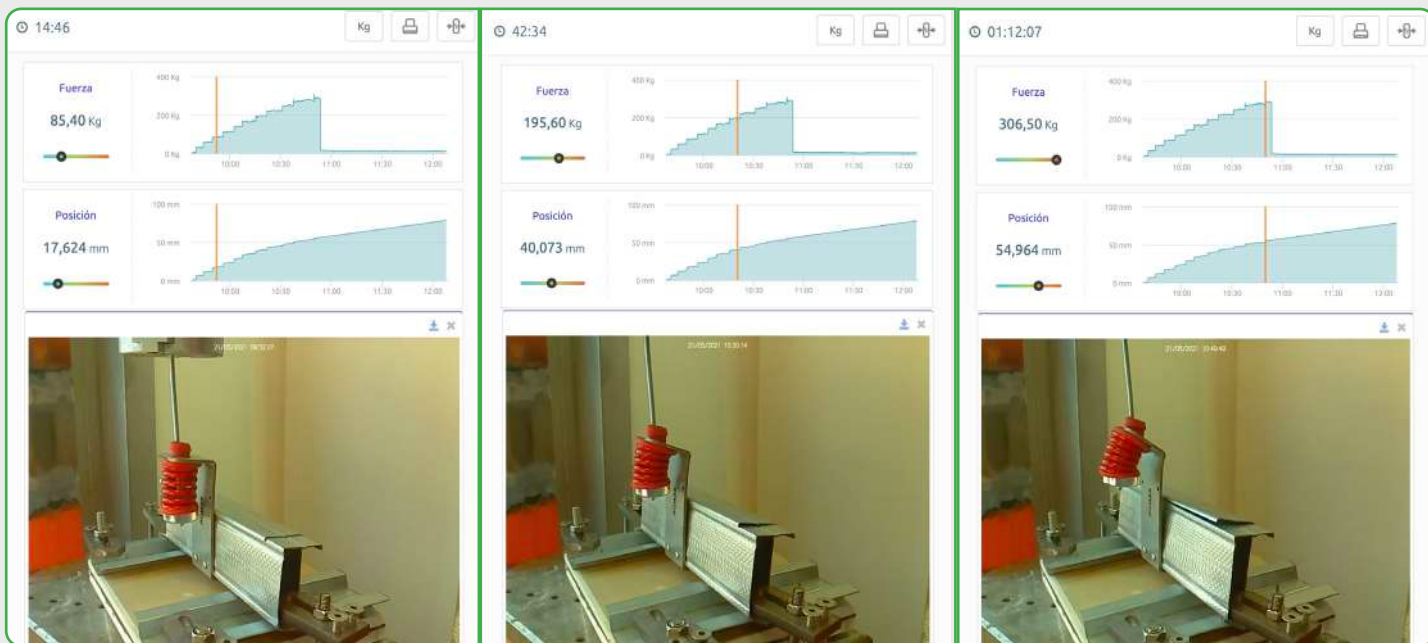


CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. SE-MSN-90 R 120

Mechanical test LABORATORY



Test layout: 85,4 kg

MSN-90 R 120

In this test, the hanger is subjected to load inside the parameters designed to the product.

SE-MSN-90 R 120
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Test layout: 195,6 kg

MSN-90 R 120

In this test, the hanger is subjected to load out of the parameters designed to the product.

We can see steel spring and polymers very compressed.

Test layout: 306,5 kg

MSN-90 R 120

Failure mode.
The components are deformed and the profiles are twisted reaching its elastic limit.

CONSTRUCTION Catalogue

HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

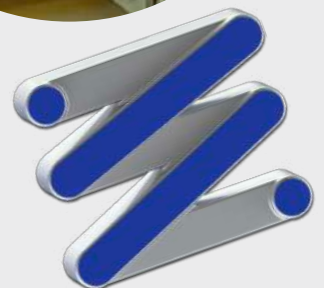
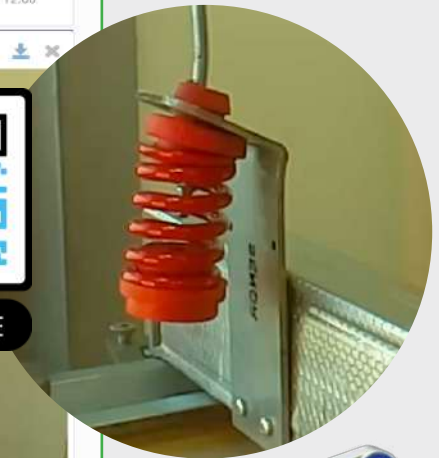
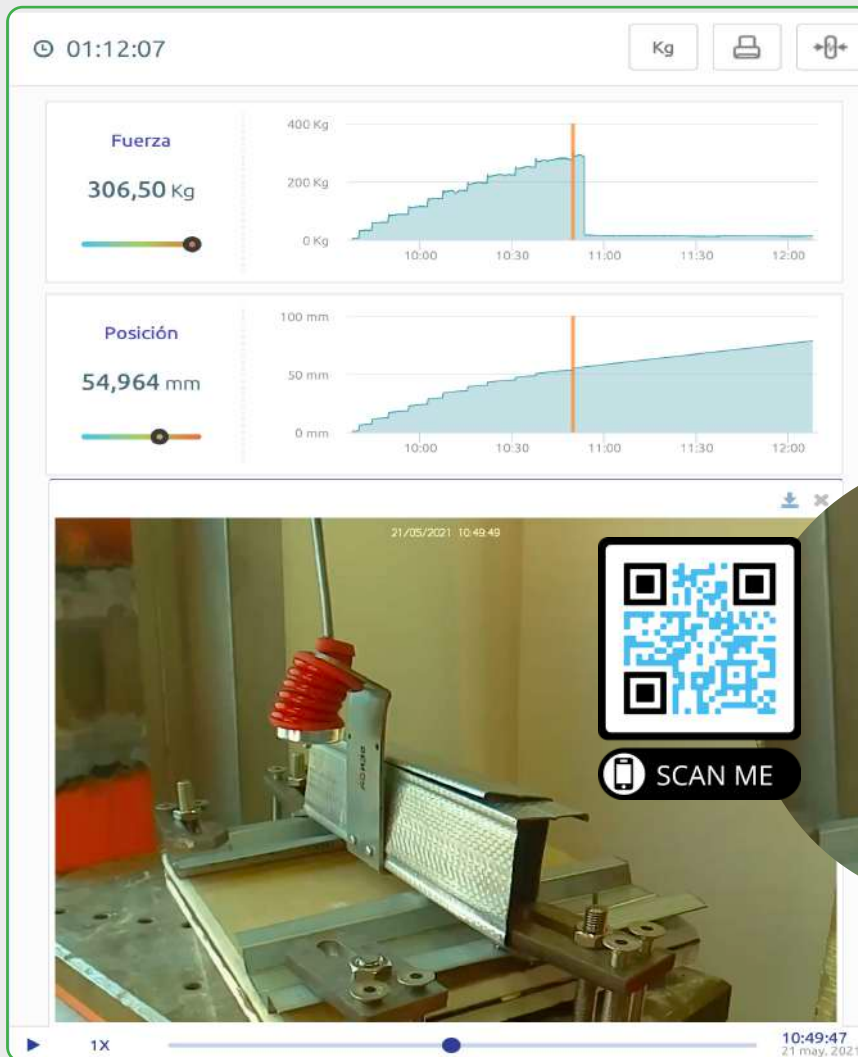
Ref. SE-MSN-90 R 120

MSN-90 R 120

Failure mode.

The elastic limit of the component is reached at **306 kg**.

The break strength testing is concluded.



SENOR

Manufacturer of **ANTIVIBRATION** systems



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HYBRID HANGER WITH **DIRECT** FASTENING TO **C** PROFILES or **STUD**

Ref. **SE-MSN-90 R 120**

Certificate of Compliance



SENOR certifies:

The **MSN-90 model** in the construction range for the suspension of acoustic false ceilings under slab has an **optimal lifespan of 10 years** provided that the installation is carried out under **ordinary environmental conditions** and are not exposed to chemical components that could degrade the product. The **MSN-90 model** strictly complies with **UNE** (Spanish Association for Standardization) **UNE 100-153-88**: air conditioning: vibration insulators: design criteria.

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Ref. SE-MSN-90 R 120

Manufacturer of **ANTIVIBRATION** systems

Warning

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SE-MSN-90 R 120

Patented



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