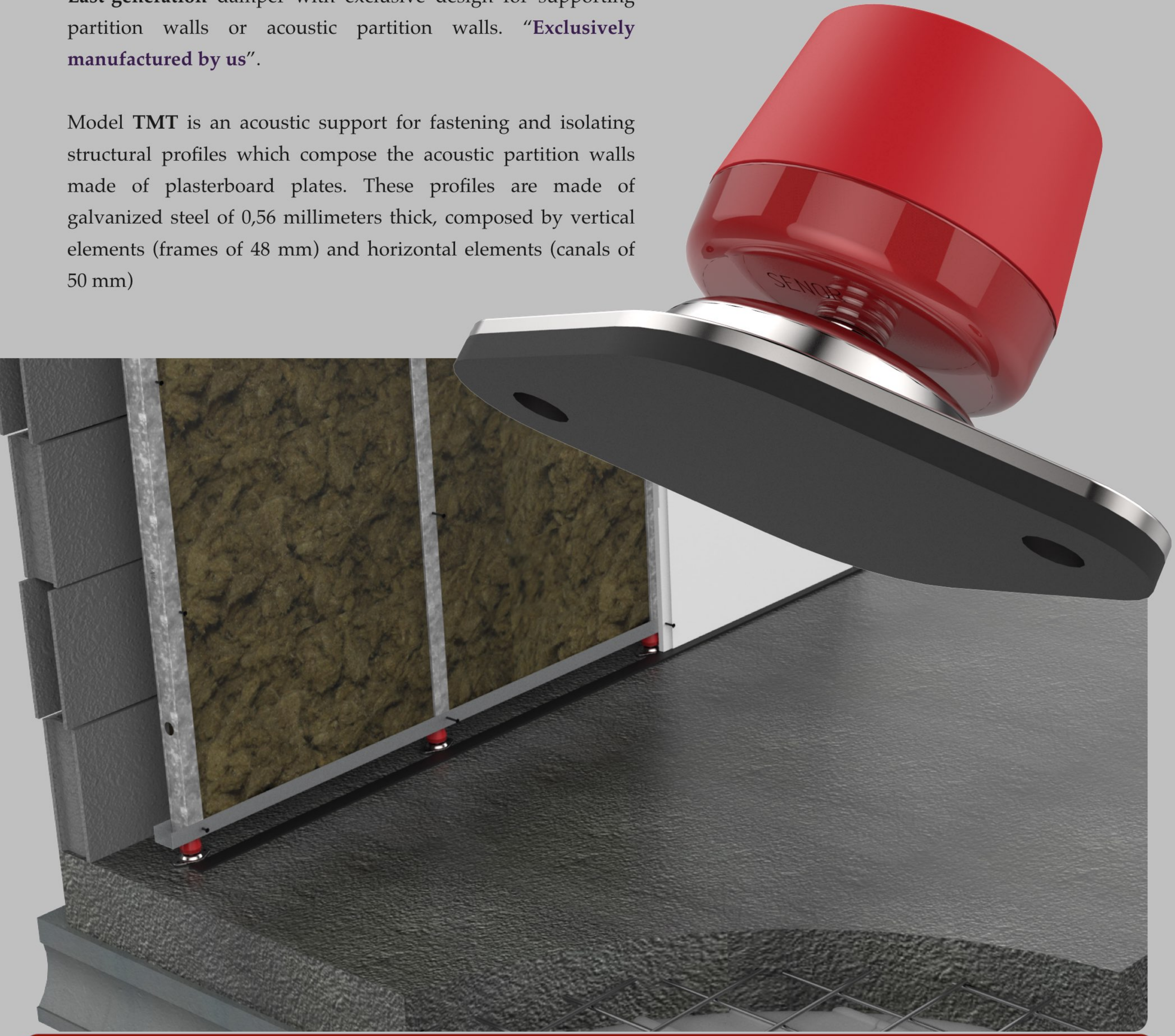
TMT-50 R + MEGOL

Revolution in the vibro-mechanical field.

Introduction

Last-generation damper with exclusive design for supporting partition walls or acoustic partition walls. "**Exclusively manufactured by us**".

Model **TMT** is an acoustic support for fastening and isolating structural profiles which compose the acoustic partition walls made of plasterboard plates. These profiles are made of galvanized steel of 0,56 millimeters thick, composed by vertical elements (frames of 48 mm) and horizontal elements (canals of 50 mm)



Damper TMT-50 R + MEGOL

It is an unique isolator which stands out for its simplicity. This new series of dampers are intended for attenuating the transmission of vibro-mechanical energy, either induced vibration or vibration caused by shocks or impacts. Thanks to its ergonomic design, it allows transforming vibratory energy into heat energy, due to its internal damping. Moreover, it has an optimal behavior in the transitional regime, and also from 20 Hz in the steady regime.

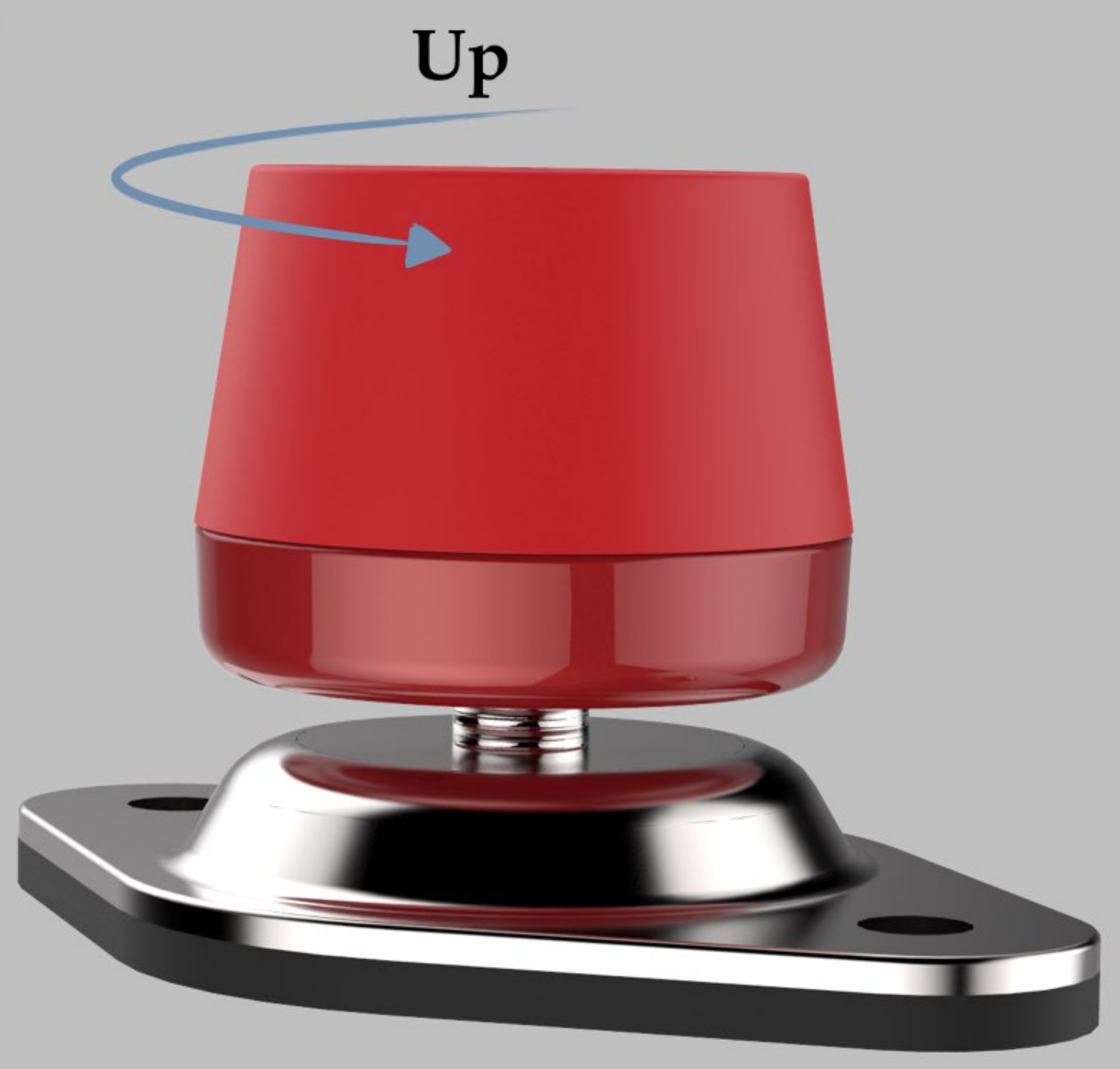
The design of the **acoustic Core** is made of a high-quality polymer with anti-rust treatment "**MEGOL - IA 50 C-UG/UVI F/61 P1250SPE**", rigorously manufactured to meet standard (**UNE EN 13964**).

Fastening system

To fasten the canal, we will use a drill-bit screw type MM. It will allow to drill and screw it into the circular metal sheet of 0,8 mm thick, which is inside the **TMT-50 R**.

Application field: Partition wall and false partition wall

Available colors of Megol: RED.

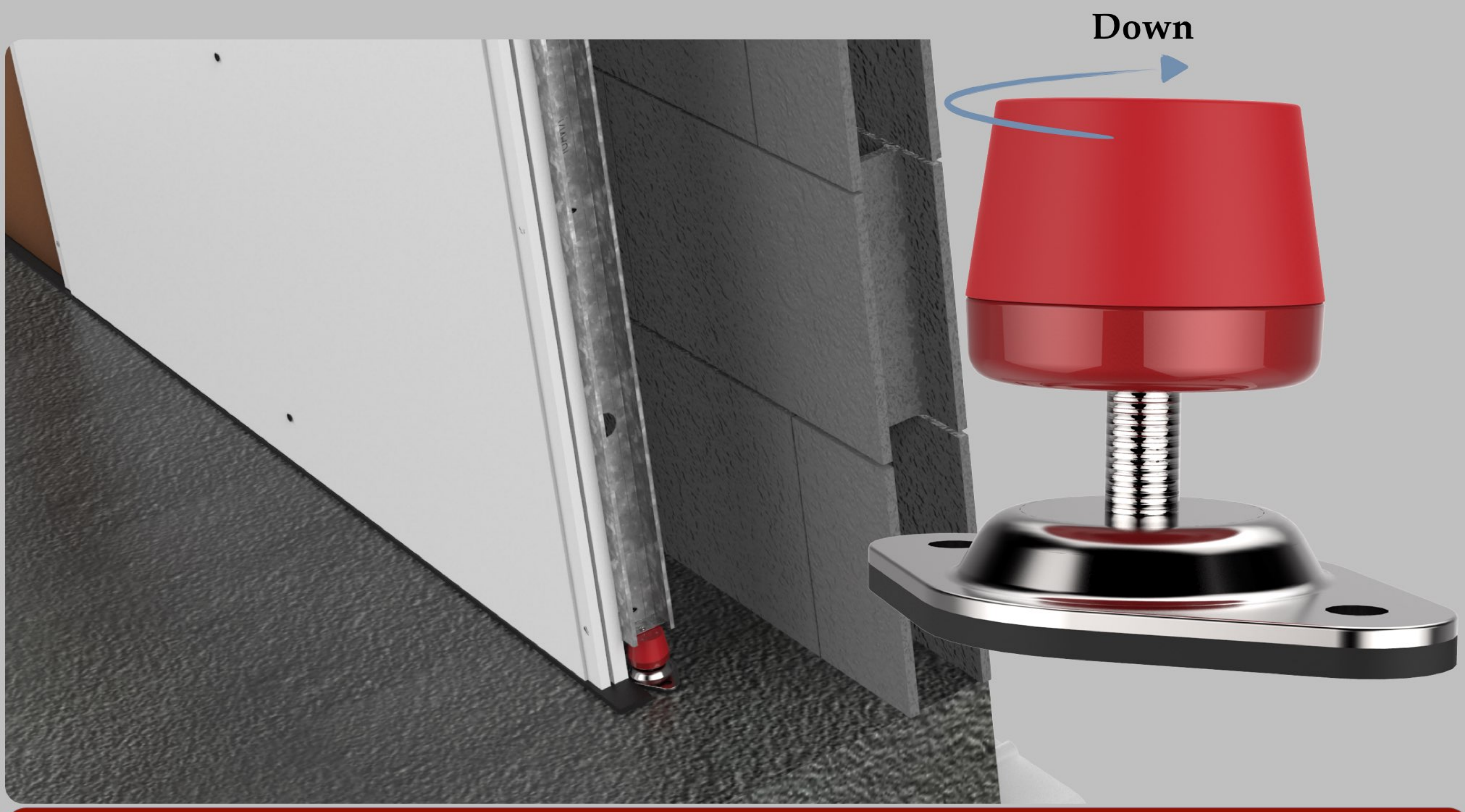


Height leveling system.

The damper **TMT-50 R** incorporates an unique leveling device. It allows getting an equitable distribution of the weight of the partition wall, avoiding the unequal load due to surface imperfections. This optimizes the damper performance and it gets incredible results in the vibro-mechanical field.

Considered by professionals, the best acoustic support for manufacturing of technical partition walls. **Say no to structural noise**.

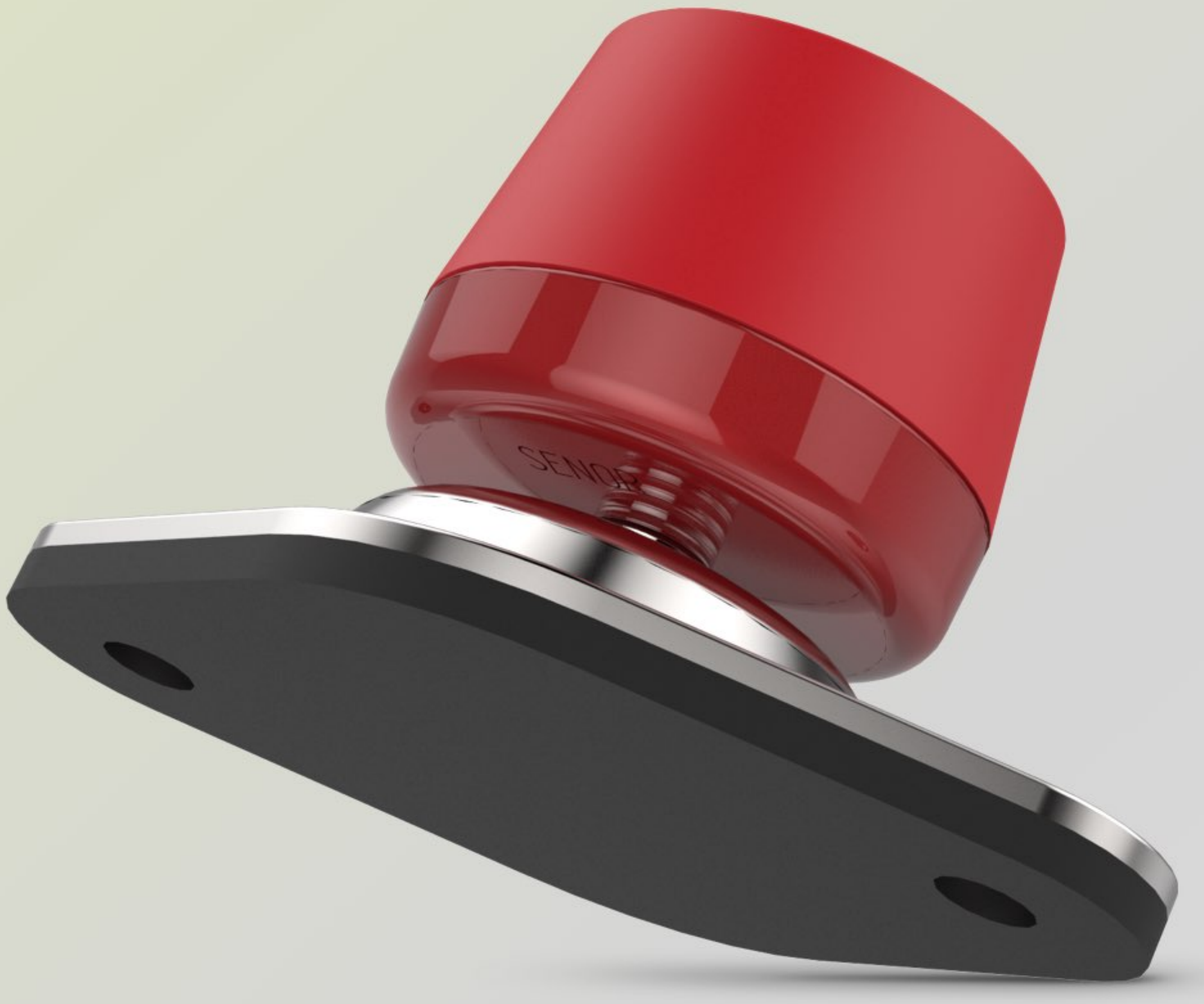
Using SENOR dampers, your life will be better.



Technical Data RED MEGOL.

Feature	Method	unit	result
Density	ASTM D 792	g/cm3	1,21
Hardness “15 sec”	ASTM D 2240	Shore A	53
Extreme Force	ASTM D 624	KN/m	21,8
Elasticity module 100% elongation	ASTM D 638	MPa	2,0
Elasticity module 300% elongation	ASTM D 638	MPa	5,0
Ultimate tensile strength	ASTM D 638	MPa	5,9
Elongation % break	ASTM D 638	%	872
MFI (190 °C, 49.05 N)	ASTM D 1238	g/10 min	15

**MEGOL I A 50 C UG/UVI RED F762/E.
P1250SPE25**



TMT-50 R

*For loads between **200N** up to **700N** as maximal load accepted by **SENOR** for the **Red MEGOL .** **Manufacturer does not recommend exceeding the maximum value in no case.***

- *Subjected to 20Kg.*

- *Subjected to 90Kg.*

Essay procedure.

- *Dynamic behavior determination.*
- *Load Curve and deformation.*

*It is about determining the natural frequency (Hz) and the deformation for different load values, over the shock absorber. A frequency sweep is done for each load state between **0-100Hz** at a given acceleration level (**0.2g**). Placing an accelerometer at the rigid part of the structure which serves for control and other on a rear point to the shock absorber action, where we will get the results which determine the shock absorber performance.*

Used equipment:** Accelerometers signal amplifier. **PCB / Code ME 084030** - Accelerometer **PCB / Code ME 072021** - Essays machine **NOGREN / Code ME 035002** - Vibratory table **LDS / Code ME 075001

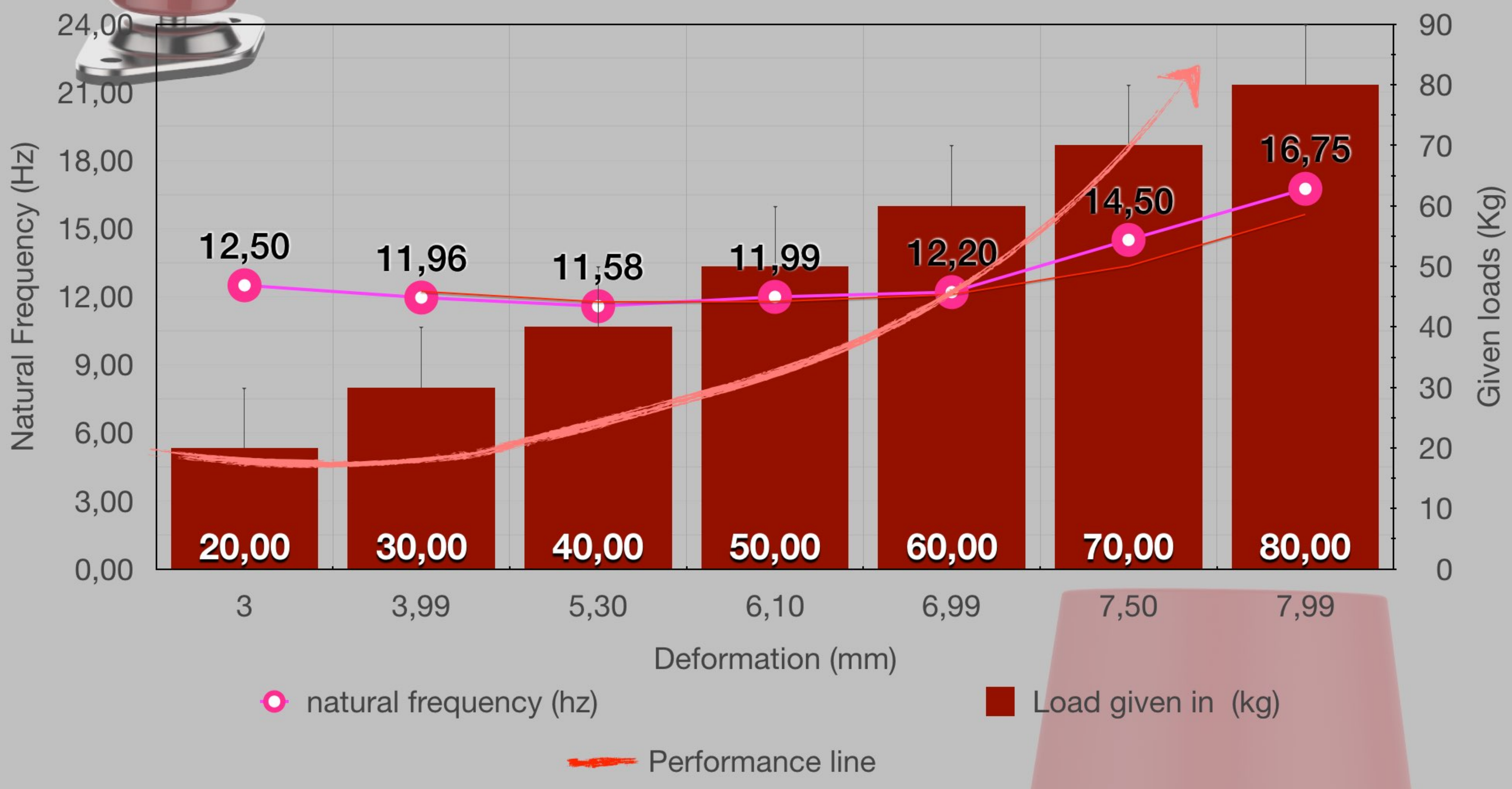
MEGOL I A 50 C UG/UVI RED F762/E. P1250SPE25

Graph Data

DEFORMATION (MM)	NATURAL FREQUENCY (HZ)	LOAD (KG)
3,00	12,50	20
3,99	11,96	30
5,30	11,58	40
6,10	11,99	50
6,99	12,20	60
7,50	14,50	70
7,99	16,75	80

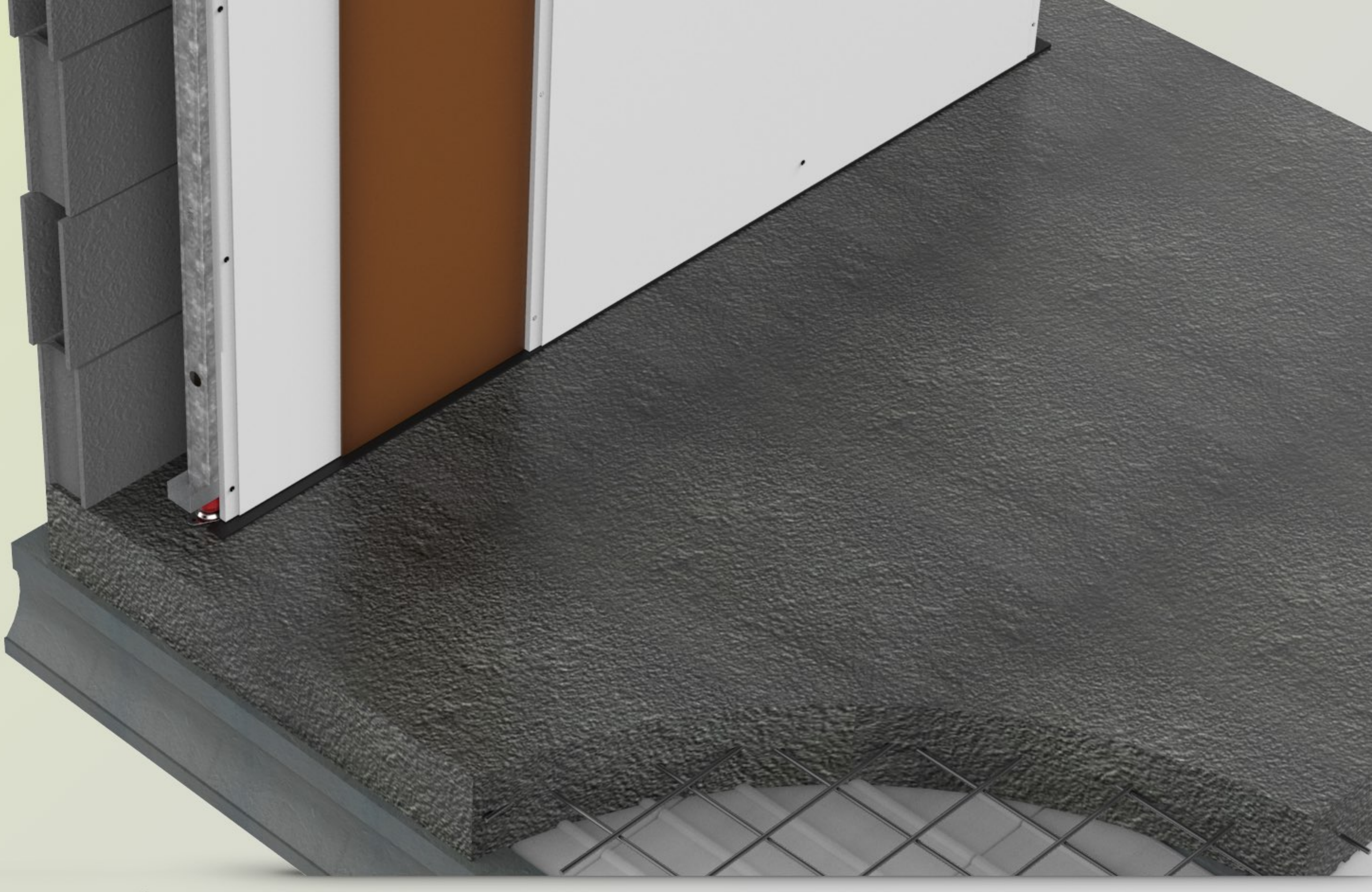
__The performance line__ shows the beginning and the end of the work performed by the polymeric body __red MEGOL__, situated in __20 Kg__ for the beginning and __70 Kg__ for its end. Vertical bars in dark __Red__ color will provide us the following information:

- *Deformation in millimeters.*
- ***Load process on each deformed point.***
- ***Optimal degree of elasticity.***



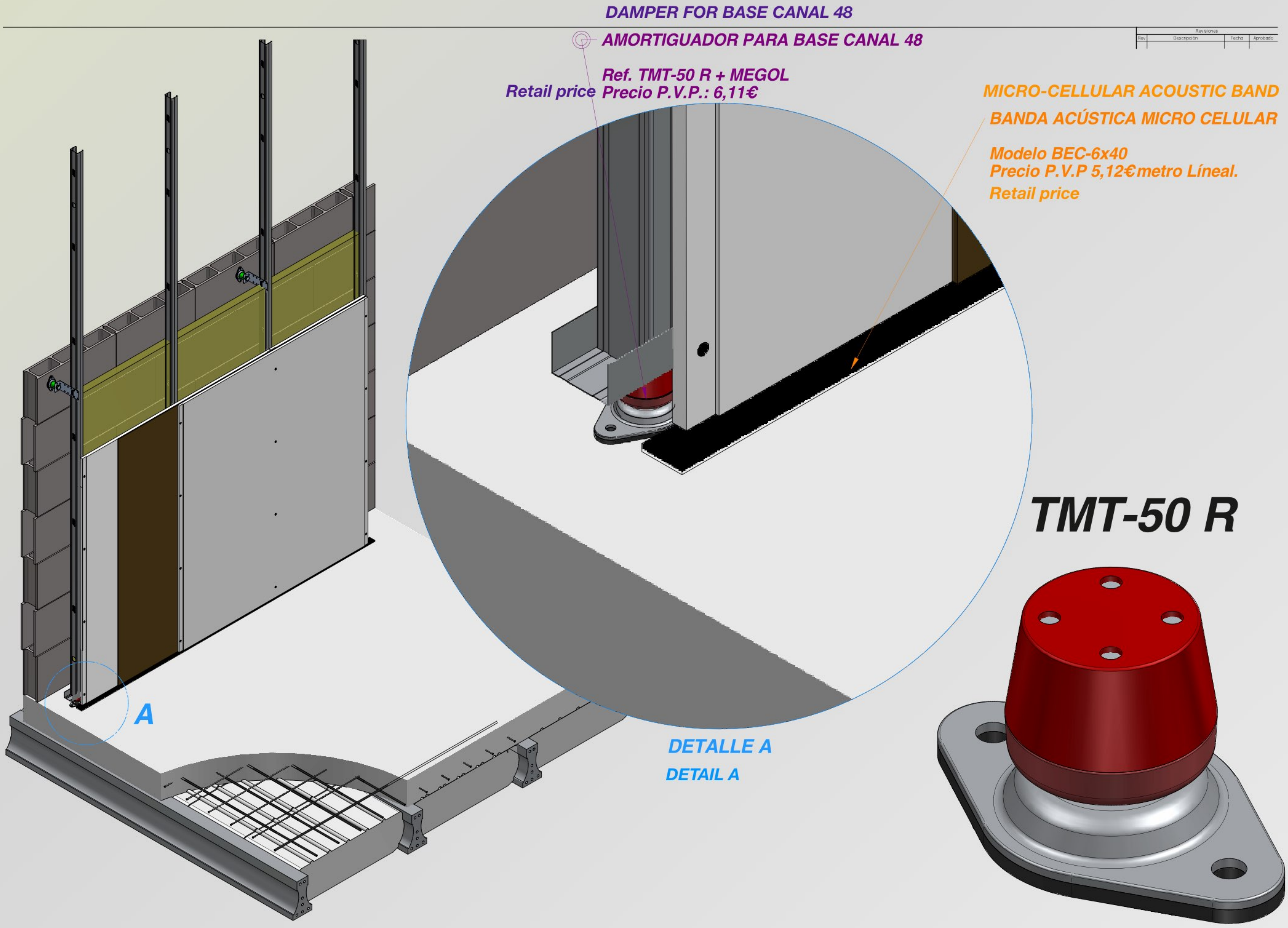
Conclusion: The damper **RED MEGOL** is placed on the hydraulic piston for its compression essay, applying the load progressively at a speed of **2 mm/min**, until a maximum of **0,9 kN**. Load and displacement data are collected.

When transferring the data to the dynamic graph, we see that vertical bars crossing the **performance** line in greater level, are bars **no. 1, 2, 3, 4, 5 and 6**. These bars show the optimal degree of elasticity. Therefore, the recommended loads to be used.



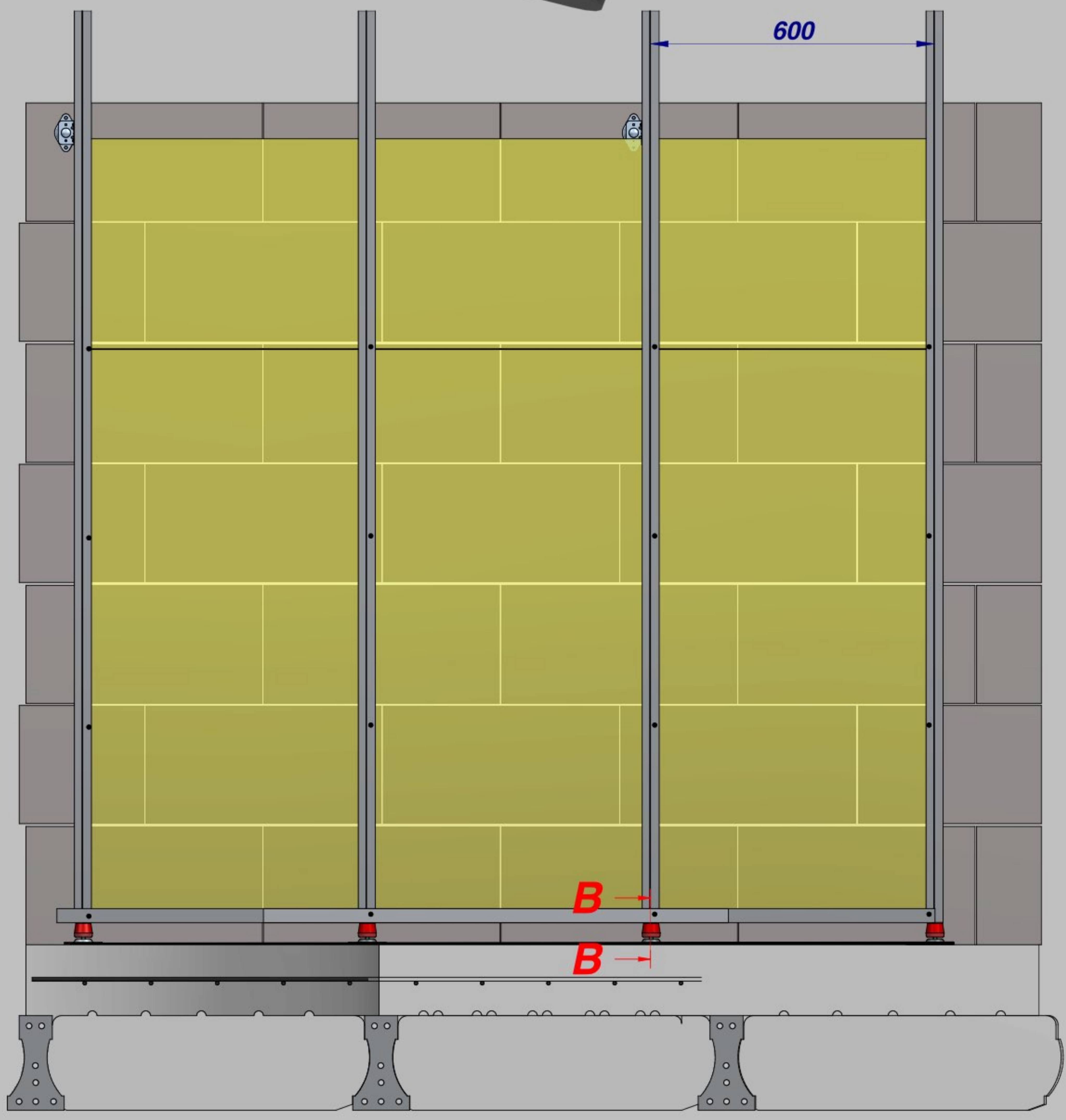
Application field example.

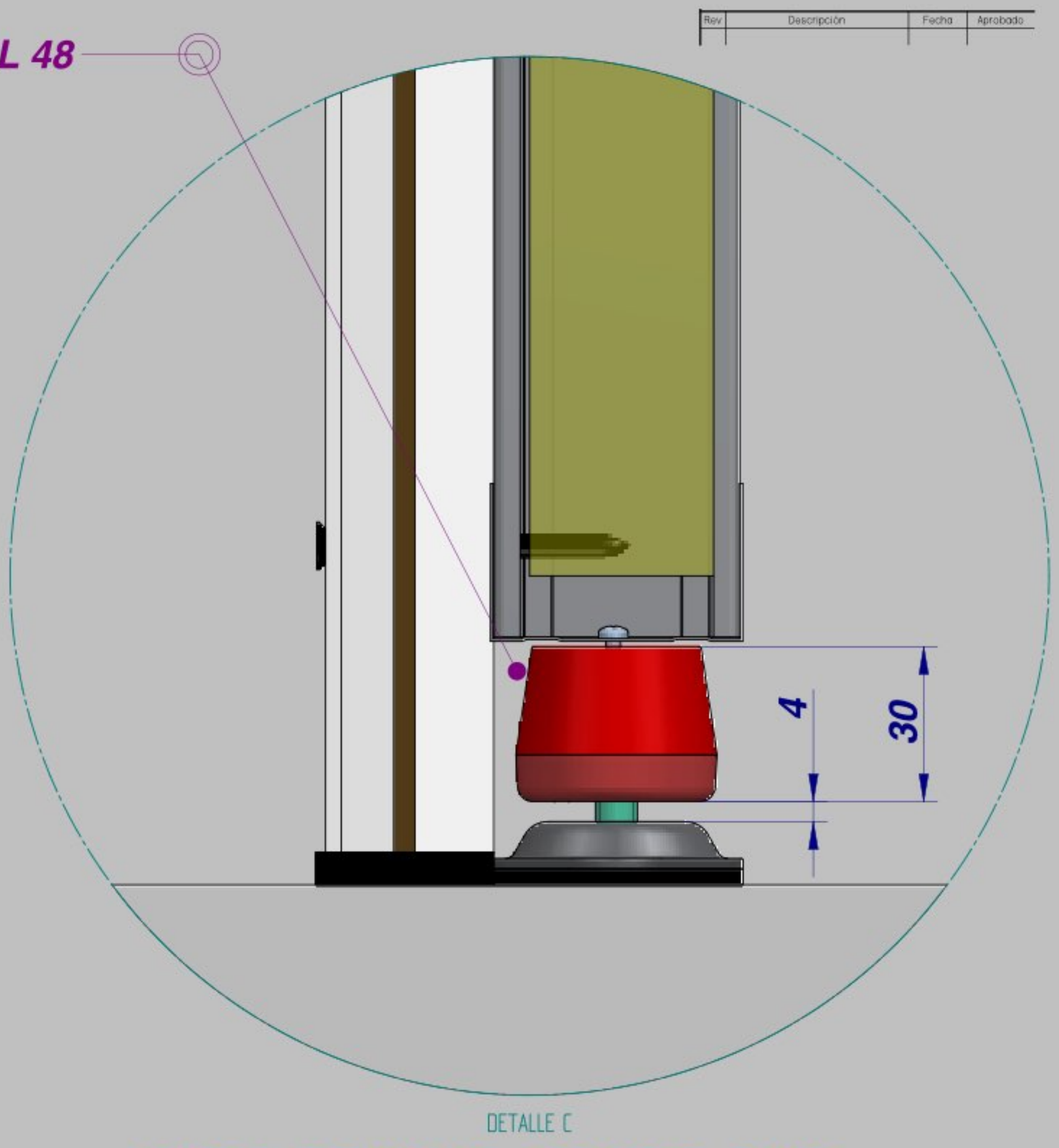
Acoustic partition wall formed by double plasterboard plate, (**15** +**13**). The supporting structure for building the system is 48mm wide, (**FRAME** and **CANAL**). The system height is **2850 millimeters**. The frames separation, between its interaxis is 600 millimeters. The dampers **TMT-50 R** will be placed under the canal of 48mm thick, matching each **FRAME**



DAMPER FOR BASE CANAL 48
AMORTIGUADOR PARA BASE CANAL 48

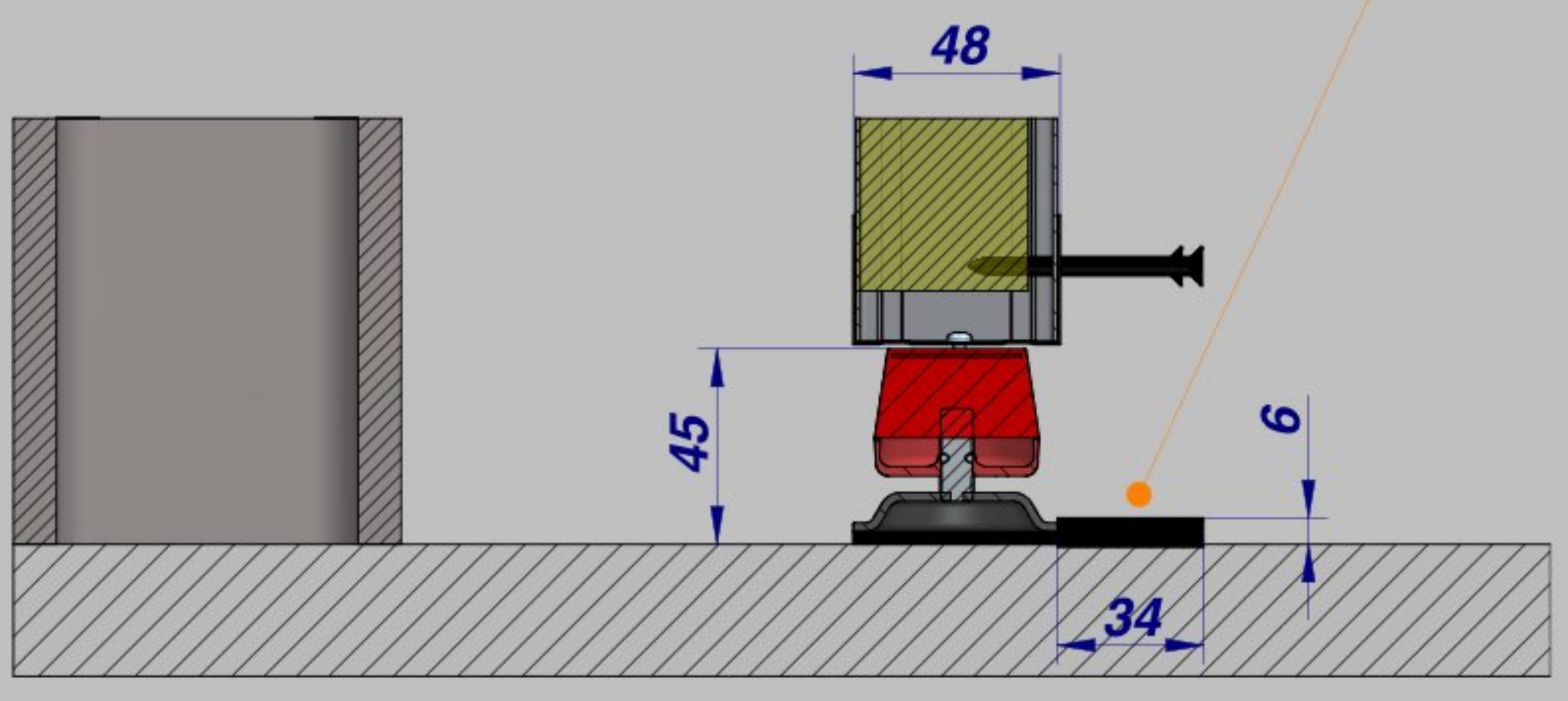
Ref. TMT-50 R + MEGOL
Retail price Precio P.V.P. 6,11€





MICRO-CELLULAR ACOUSTIC BAND
BANDA ACÚSTICA MICRO CELULAR

Modelo BEC-6x40
Retail price Precio P.V.P. 5,12€metro Líneal.



SECTION B-B
CORTE B-B

Sandwich:

Plasterboard: 28 millimeters.

Density meter^3= 800Kg./m^3

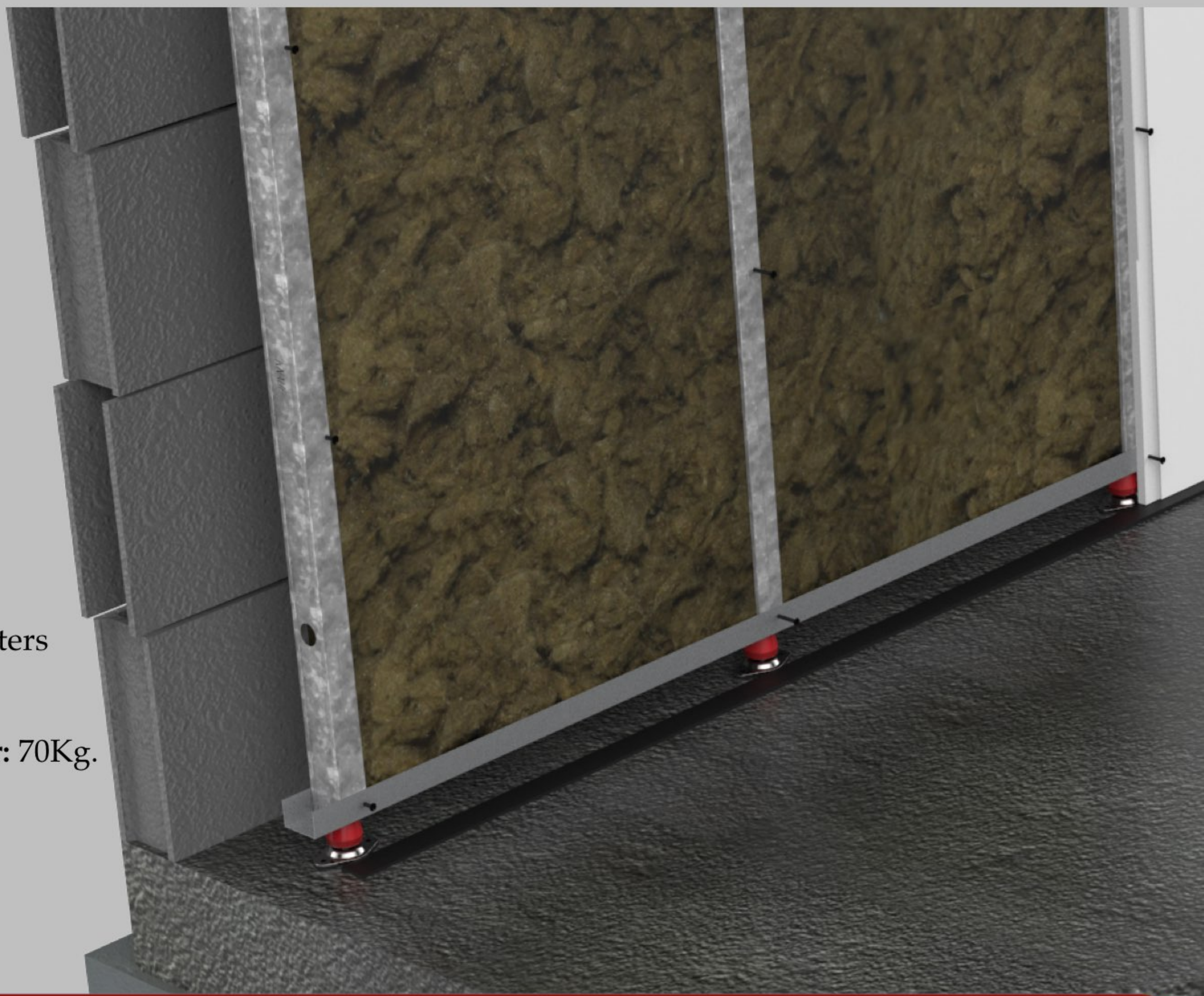
Total thickness= 15 +13 = 28 millimeters.

Total weight of the 2 plasterboard=

800 x 28 = **22,4Kg./m^2.**

Probe dimensions:

1. **Probe height:** 2,80 meters
2. **Adopted length for calculation:** 60 meters
3. **No. of dampers for calculation:** 98
4. **Total weight of treatment linear meter:** 70Kg.
5. **Load per damper:** 42Kg



CE

NORM FREE

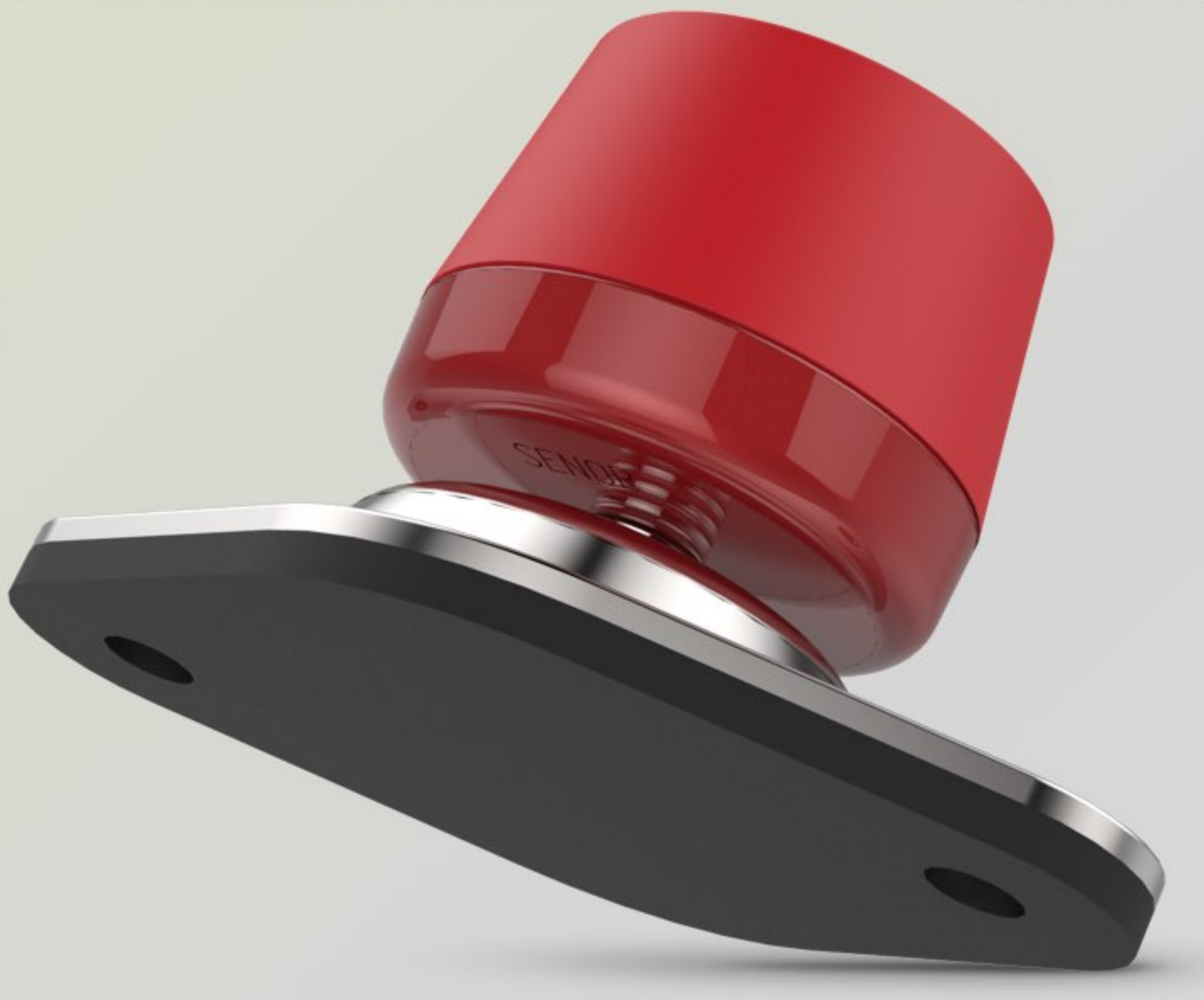
QUALITY CERTIFICATE

(IT DOES NOT EXIST A NORM FOR SUPPORTS HOLDING PARTITION WALLS)

SUSPENSIONES ELÁSTICAS DEL NORTE, S.L.
P.I. El Garrotal, Parcela 10, módulo 5 14700 Palma del Río (CÓRDOBA) España (SPAIN)

DECLARES UNDER YOUR RESPONSIBILITY THAT THE FOLLOWING COMPONENTS OF SUBSTRUCTURE OF SIMPLE PARTITION WALL TO BE USED INSIDE BUILDINGS.

MODELO/*MODEL*: SE-TMT-50 R
REFERENCIAS/*REFERENCES*:



COMPLY STRICTLY WITH THE MENTIONED FEATURES IN THE TECHNICAL SHEETS:

APPLICATIONS:

Used in the execution of the metal structure of simple partition walls of plasterboard based of frames and canals, serving as elastic union between the structure and the building.

DATE OF ISSUE:
3/03/2010

RE:
DCE TMT-50 R – ver 09.001 0

"**SENOR**"; reserves the right to change the technical specifications of the product without previous notification. The user is the final responsible for knowing and using the updated last version of the data sheets of products. A copy will be sent to anyone who request it. This information and, in particular, the application recommendations and final usage of the product, are given in good faith, based on our current knowledge and the experience of "SENOR" de sus productos, cuando son correctamente instalados en circunstancias normales, y dentro de su vida útil.

Ms Carmen López Iglesias Gerente/ *Managing Director*

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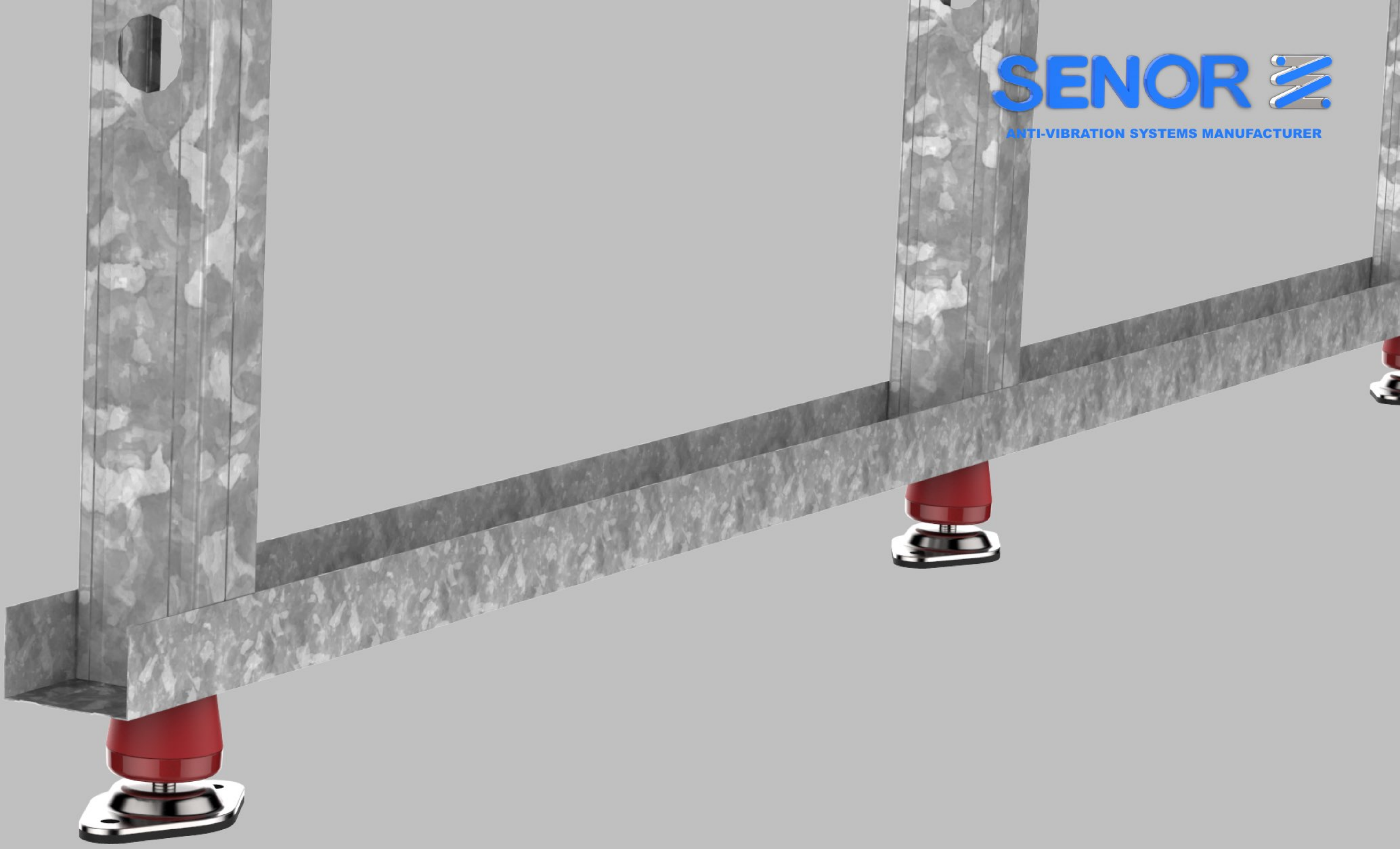
[1] except misprint



BUREAU VERITAS
Certification

1828

Certificación
Certification

Concedida a / Awarded to

SUSPENSIONES ELASTICAS DEL NORTE SL

PLG. IND. EL GARROTAL, PARCELA 10 MODULO 5 MODULO 5
14700 PALMA DEL RIO
SPAIN

Bureau Veritas Certification certifica que el Sistema de Gestión ha sido auditado y encontrado conforme con los requisitos de la norma:
Bureau Veritas certify that the Management System has been audited and found to be in accordance with the requirements of standard:

NORMA / STANDARD

ISO 9001:2008

El Sistema de Gestión se aplica a:
Scope of certification:

DISEÑO, DESARROLLO Y FABRICACIÓN DE AISLADORES ACÚSTICOS PARA LA ERRADICACIÓN DE LAS VIBRACIONES Y LA CONTAMINACIÓN POR RUIDO PARA SU APLICACIÓN EN LOS SECTORES DE LA CONSTRUCCIÓN Y LA INDUSTRIA.

DESIGN, PRODUCTION AND ASSEMBLY OF ACUSTIC ISOLATORS FOR THESUSPENSION OF FALSE ROOFS, WALLS AND FLOORS. COMMERCIALIZATION OF ACUSTIC AND WATERFIGHT BANDS AND ACUSTIC ISOLATORS.

Número del Certificado *Certificate Number* **ES059307-1**

Directora de Certificación / Certification Manager

Aprobación original : *Original approval date :* **25/09/2002**

Certificado en vigor: *Effective date:* **04/10/2014**

Caducidad del certificado: *Certificate expiration date:* ***03/10/2017***

Este certificado está sujeto a los términos y condiciones generales y particulares de los servicios de certificación
This certificate is valid, subject to the general and specific terms and conditions of certification services

Entidad de Certificación / Certification Body: Bureau Veritas Iberia S.L.
C/ Valportillo Primera 22-24, Edificio Caoba, Pol. Ind. La granja, 28108 Alcobendas - Madrid, Spain

ENAC
CERTIFICACIÓN
Nº 04/C-SC004

<u>WE CERTIFY.-</u> That all of our products of construction range for fixing **PARTITION WALLS**, have an aging life of **30 years** when its installation is made inside, and they are not exposed to sunlight or any **<u>external agent.</u>**

Storage and preservation.

Store on clean and flat surfaces. Never outside, keeping them covered and sheltered from sunlight and rain.

Assembly Process.

Check **SENOR** installation manual.

Signature.

Mr. **David Muñoz López** with **D.N.I. 14262923 W**. Head of Research and Development Area of **SENOR** company.