

SEÑOR FTD MINI-47/WALL LINING

THE SLIMMEST RUBBER DAMPER IN VIBRATION PROTECTION WITH DIRECT ATTACHMENT TO THE PROFILES TYPE TC-45/48

The **FTD MINI-47 /TD** is the slimmest and most efficient damper on the market, standing out not only for its compactness, but also for its exceptional ability to adapt to space-constrained contours. This innovative device is considered both the present and the future in the field of acoustic control, offering effective solutions to improve sound quality in places where space is a precious resource. Its manufacture incorporates waterproofing technology that allows the virtually total elimination of noise pollution generated through solid vibrations, thus ensuring a quieter and more comfortable environment. This type of damper is ideal for applications in recording studios, small offices and any area where a high level of sound insulation is required without sacrificing usable space.

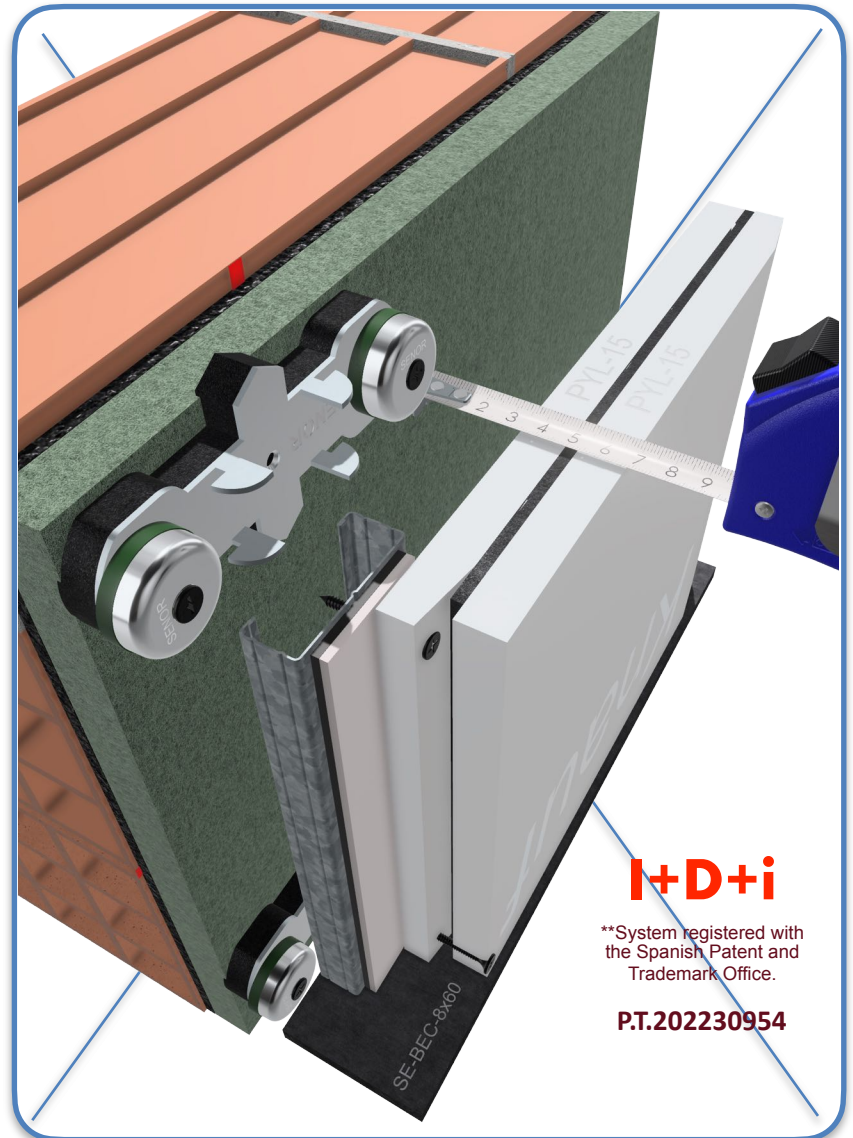
Build acoustic walls with minimum effort, obtaining acoustic improvements to airborne noise of more than 12dB with proven results.

12dB with proven results.

Preview in Augmented Reality ×



Scan the QR code to open this 3D Model on your iOS or Android device.



I+D+i

**System registered with the Spanish Patent and Trademark Office.

P.T.202230954

REF.	COLOUR	FIELD OF APPLICATION	LOAD (Kg) MIN-MAX	CHANNEL (min-max)
SE-FTD MINI-47/TD		Acoustics wall lining	3 - 25	45 - 48

Usage Recommendation: Acoustic wall lining is an essential solution in the renovation of spaces such as houses and shops in residential buildings. These systems attenuate noise, improving acoustic quality and ensuring the comfort of the inhabitants, as well as contributing to the energy efficiency and aesthetics of the interior and complying with the technical building code (DB-HR).

RUBBER System: The innovative design of its double core, with the TC4/GPN elastic component, manufactured by KRAIBURG-TPE according to UNE-EN ISO 10846-1:2009 for SENOR, stands out for its significantly higher damping factor, which allows exceptional energy absorption and vibration reduction in a wide range of frequencies. This improvement optimises its mechanical properties and increases the effectiveness of the acoustic field by more than 10%, improving sound quality and creating a more pleasant environment.

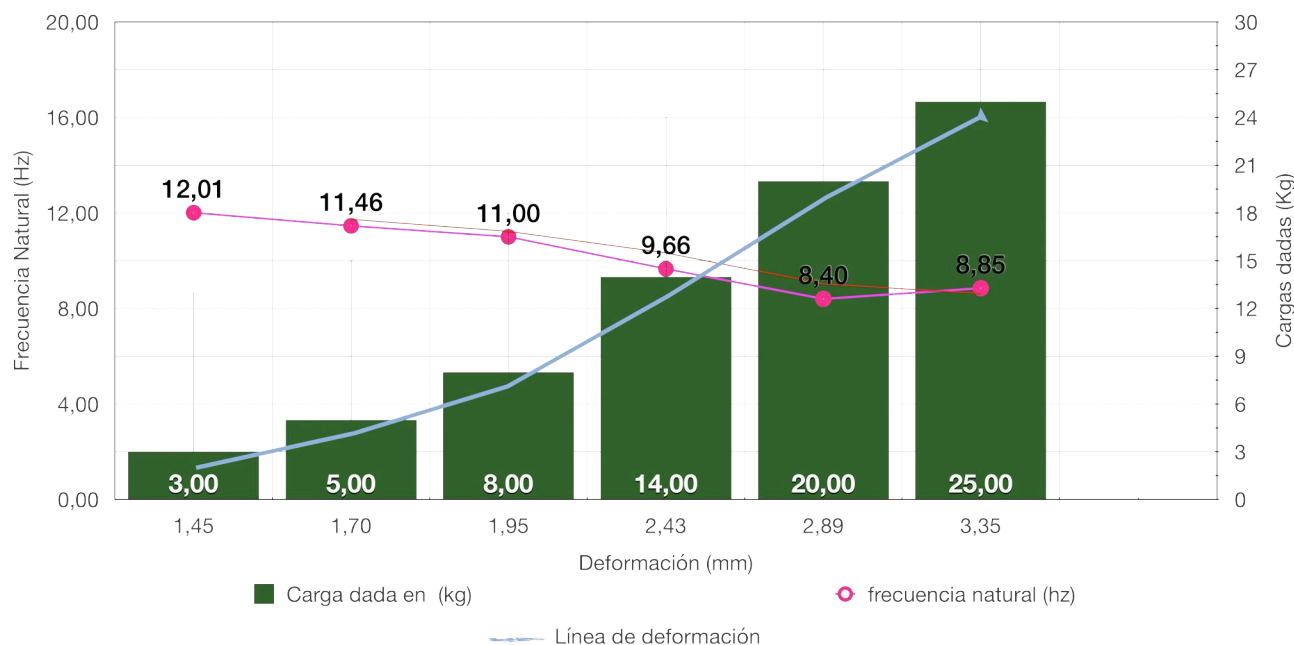
√Resonant frequency: 7-15Hz

Dinamic Behaviour and Axial Deformation

Steel coil springs exhibit a dynamic stiffness equivalent to their static stiffness, facilitating their use in applications requiring predictable mechanical properties. In contrast, viscoelastic materials exhibit more complex behaviour. The dynamic stiffness of these materials never equals their static stiffness, as they absorb and dissipate energy, adapting to the frequency and magnitude of vibrations. To understand this phenomenon, the dynamic behaviour of viscoelastic materials cannot be determined by theoretical calculations alone, but requires specific laboratory tests, ensuring accurate data for industrial applications...

TABLE + GRAPH OF LABORATORY RESULTS

LOAD (Kg)	DEFORMATION (mm)	RESONANCE FREQUENCY (Hz)	SWEEP (Hz)	% SOUNDPROOFING
3	1,45	12,01	50	93,88
5	1,70	11,46		94,46
8	1,95	11,00		94,91
14	2,43	9,66		96,12
20	2,89	8,40		97,10
25	3,35	8,85		96,77



Airborne Noise Insulation Test

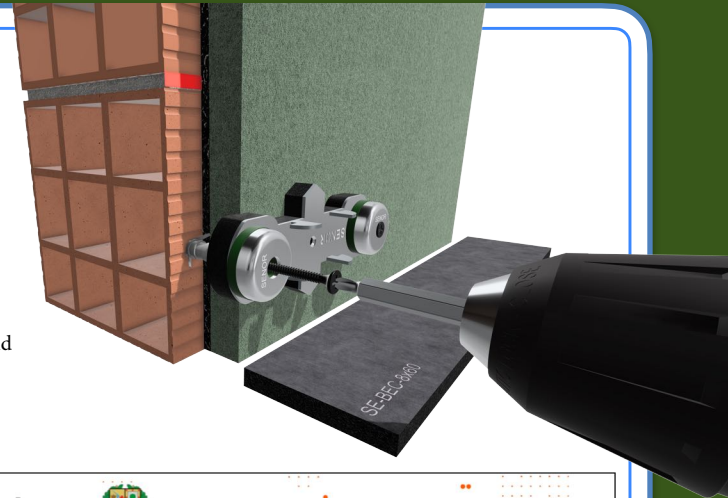
You will be surprised by its performance! It is an ideal damper for designing technical acoustic wall lining. Say NO to noise.

Standards: UNE-EN ISO 10140-1:2016 and UNE-EN ISO 10140-2:2011.

Laboratory: TECNALIA (Vitoria). Date: 3-March-2021

Sample: ACOUSTIC WALL LINING WITH DAMPERS.

Normalised base wall: 15 cm concrete block + plaster on both sides. Standard base thickness and weight: 17.5 cm and 149 kg/m². Total wall lining thickness: 6.2 cm.



tecnal:a
MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE



Fotos de montaje del trasdosado

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Aislamiento al Ruido Aéreo según UNE-EN ISO 10140-2:2022 Medidas en Laboratorio

CLIENTE: SUSPENSIONES ELÁSTICAS DEL NORTE, S.L. (SENOR)

FECHA ENSAYO: 15/04/2024

RESULTADO Nº: 110909-620-RA

MUESTRA: TRASDOSADO DIRECTO

ACÚSTICO DANOSA+SENOR:

- DANOFON (DANOSA)
- Amortiguador SE-FTD MINI 47 (SENOR)
- Perfil 45 mm
- FONODAN 50 (DANOSA) y SE-MONT-BICAPA-40 (SENOR)
- Banda acústica SE-BEC-8x80 (SENOR)
- Placa yeso laminado 12,5 mm
- M.A.D. 4 (DANOSA)
- Placa yeso laminado 12,5 mm

SOBRE PARED DE BLOQUE REVESTIDA

Masa superficial estimada: 329 kg/m²

Área muestra: 10,08 m²

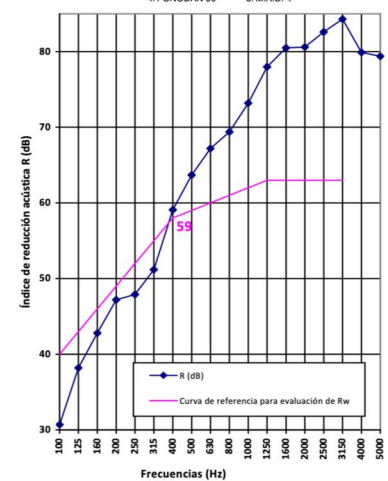
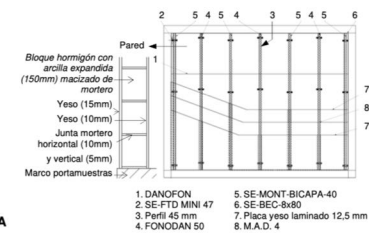
V_{emi}: 66,2 m³ V_{rec}: 55,2 m³

T_{emi}: 20,3 °C T_{rec}: 20,4 °C

H_{emi}: 50 % H_{rec}: 51 %

P_{emi}: 966 mbar P_{rec}: 966 mbar

V: volumen; emi: sala emisora; rec: sala receptora



Índices según UNE-EN ISO 717-1:2021 **R_w (C_v;C_{tr}): 59 (-3; -10) dB**

Índices según CTE DB-HR: **R_A: 57,4 dBA**

R_{A,br}: 49,1 dBA



*R_v ≥ valor indicado (límite medida por aprox. R_{v,med}). R_{v,med}: 5000 Hz=94,1 dB.

Evaluación basada en resultados de medición en laboratorio obtenidos mediante método de ingeniería

SENOR FTD MINI-47/WALL LINING

 Youtube
SENOR Aisladores Acústicos



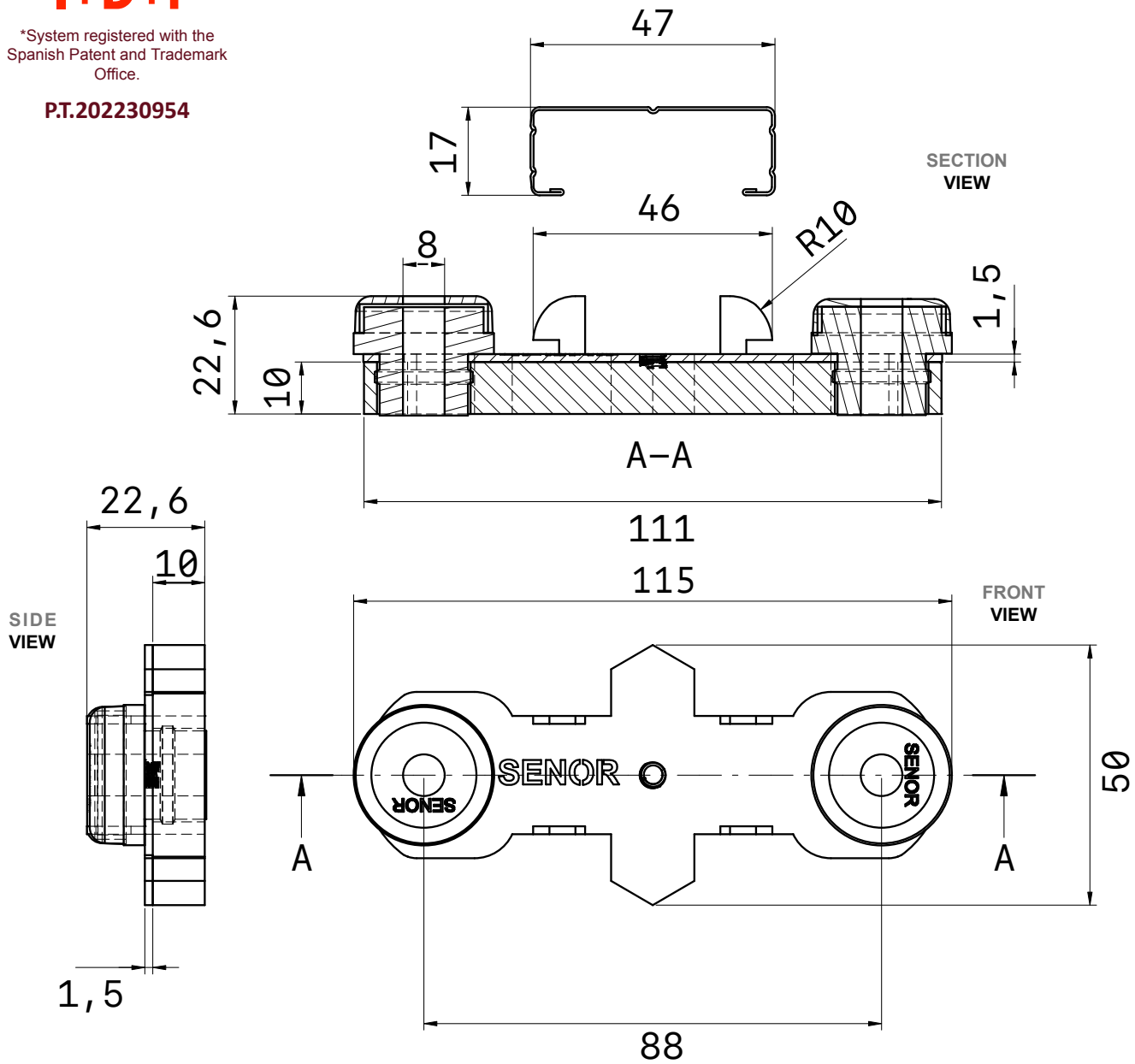
SENOR Productos
Acoustic Wall Lining

Dimensions

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*System registered with the
Spanish Patent and Trademark
Office.

P.T.202230954



MAIN FEATURES

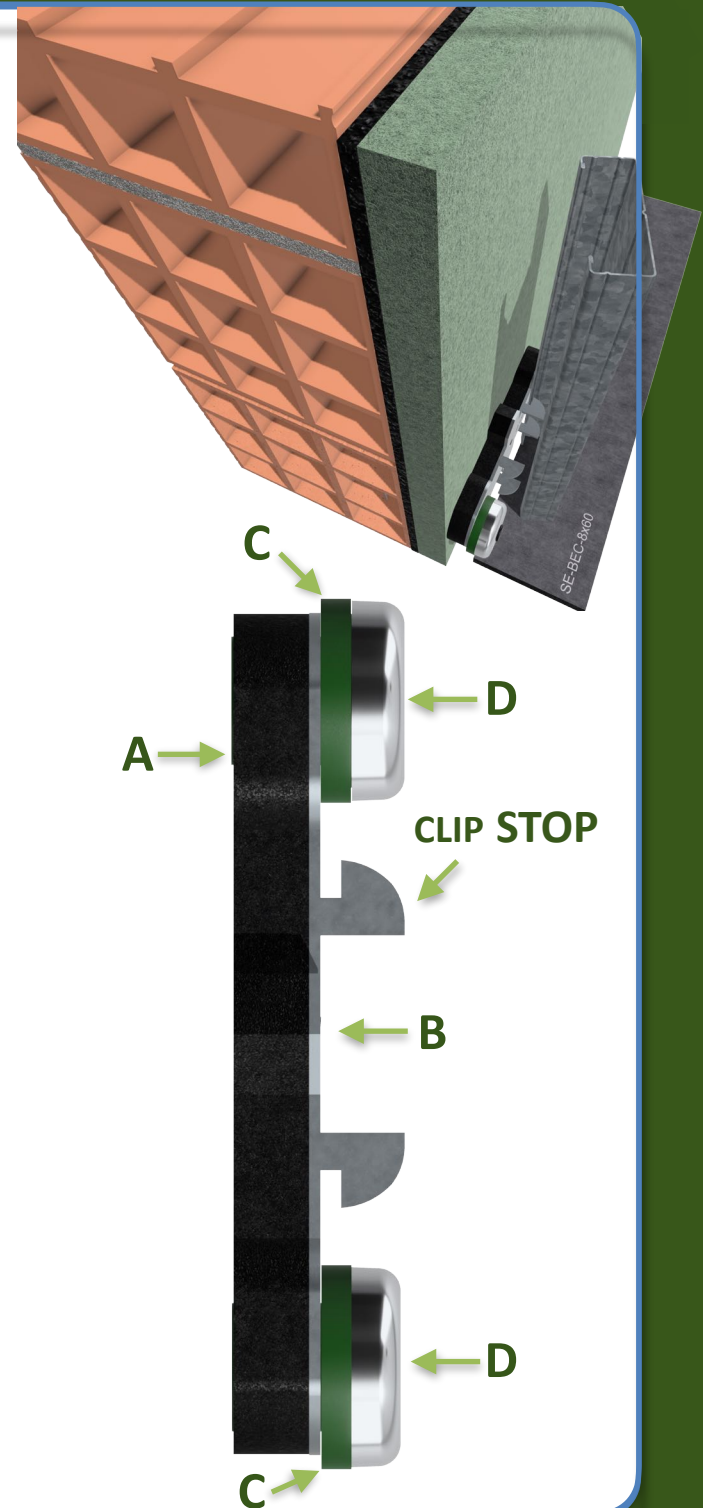
FTD MINI-47/TD is a damper that stands out for its strength and durability, designed for acoustic wall lining suspension systems in limited spaces. Its direct wall fixing maximises space and allows for efficient and fast installation. This feature makes it a convenient option for commercial establishments looking for practical solutions. Its robust design ensures good adaptation to different environments, being key to optimum performance in extreme conditions, which makes it preferable in projects with space limitations, obtaining acoustic improvements to airborne noise above 12dB according to UNE-EN ISO 717-2:2021 evaluation with results already tested.

A: CR-130/BEC-10 EPDM backing plate is distinguished by its ability to effectively eliminate any type of vibro-mechanical energy related contamination, especially in the mid and low frequencies, which are typically in the Hertz (Hz) range. This material is designed to absorb and dissipate unwanted vibrations, making it an ideal solution for applications where stability and noise control are essential.

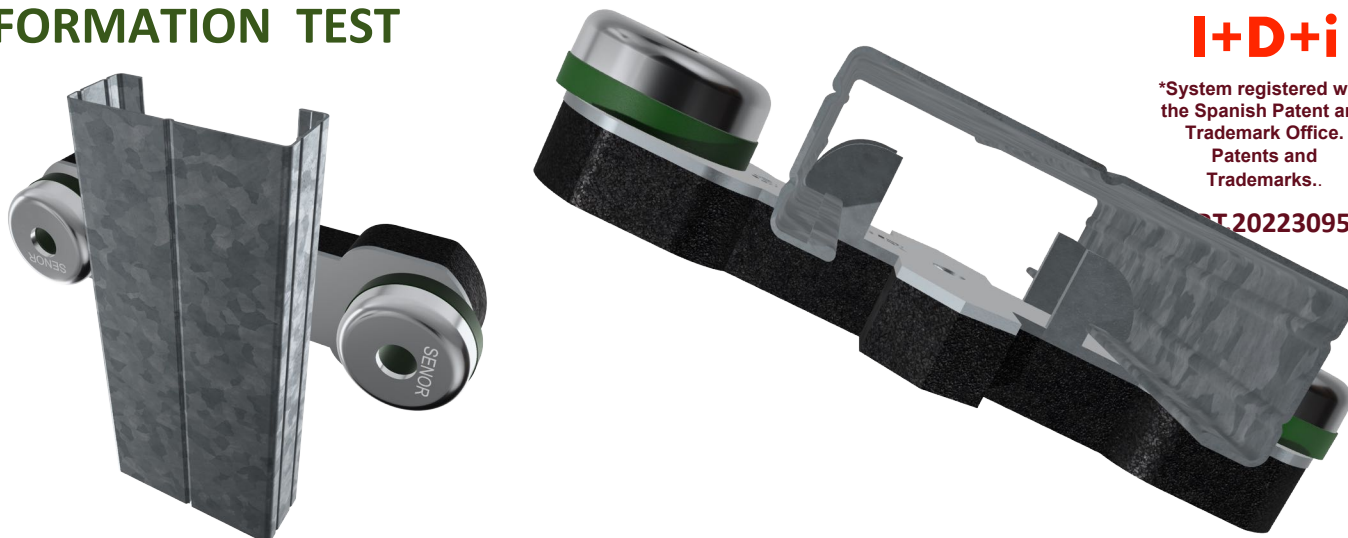
B: STEEL base plate is made of high quality galvanised steel, specifically type Dx54d + Z140, which guarantees excellent corrosion resistance and prolonged durability in harsh environments. With a thickness of 2 mm, this structure not only provides remarkable rigidity to the system, but also plays a crucial role in the axial compression of the elastic components, ensuring that they maintain their optimum performance and stability under load. In addition, it incorporates the innovative CLIP STOP system, a simple clip and fixed profile.

C: TC4/GPN Rubber Top Plug features a protruding collar design, an ingenious innovation that prevents unwanted contact between the set screw and the steel housing, which is crucial to ensure the durability and performance of the system in which it is used. This component not only acts as a physical separator, but also plays a key role in vibration damping. Its ability to effectively reduce vibrations in the medium and high frequency range, expressed in hertz (Hz), makes it an ideal solution for applications where stability and operational smoothness are paramount.

D: CN is made of deep-drawn steel type DC04 according to steel standard EN10131 with a thickness of 1.5 mm. Designed to withstand high loads.



DEFORMATION TEST



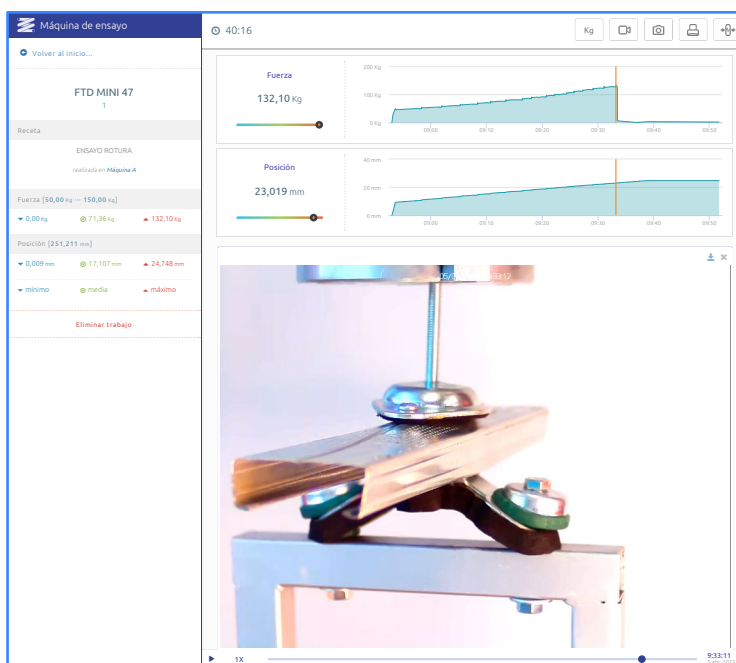
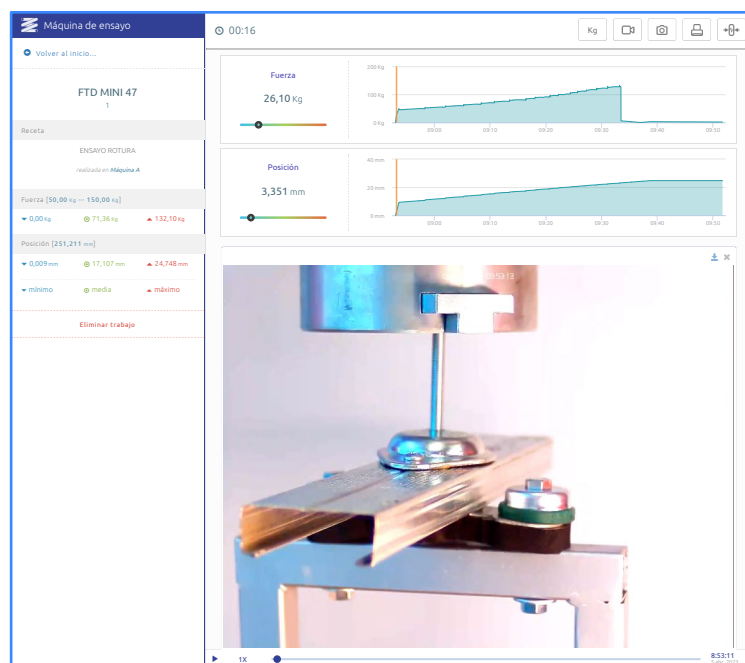
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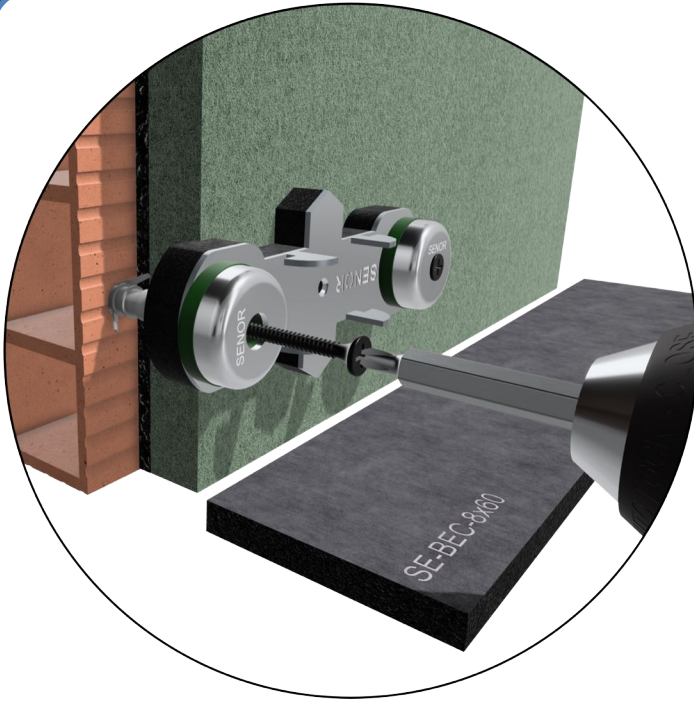
PT 202230954

Traceability / Date: Abril 5, 2023

Failure mode: The elastic limit of the STEEL base plate (B) is exceeded when it reaches 68.56 kg. We continue subjecting the insulator until it reaches 132.10 kg, at which point the profile is detached from the support and the line of force drops sharply to 10.80 kg. The breakage test is finished. It complies with UNE-EN 13964:2016 as it is a damper with loads between 3 and 25 Kg maximum load.



INSTALLATION



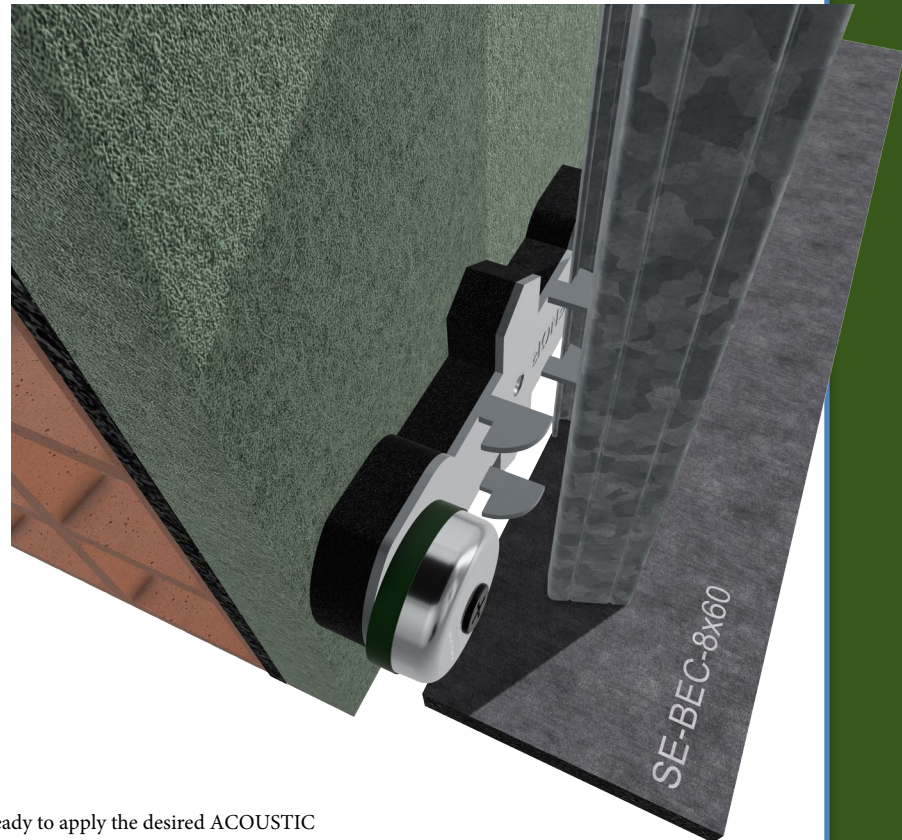
1.

The FTD MINI-47/TD is fixed to the wall using steel screws and Fischer plugs.

2.

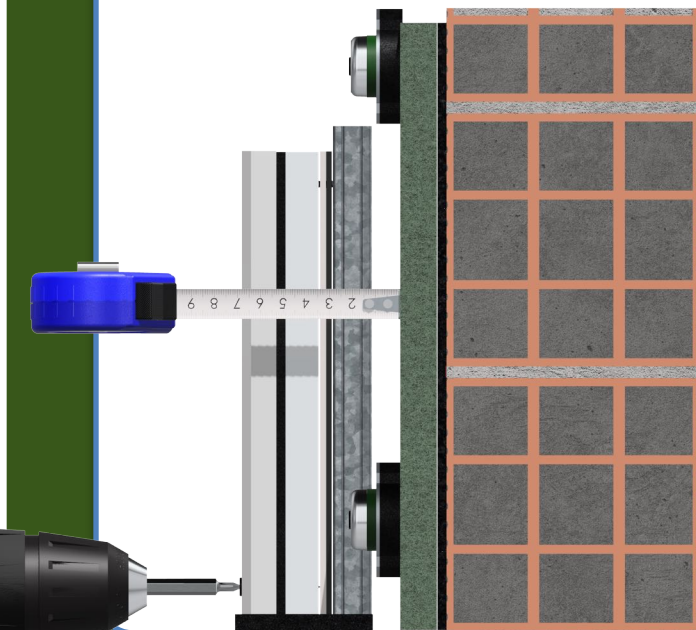
Insert the TC-45/48 profile on the FTD MINI-47/TD with light pressure on the anchors (CLIP STOP).

IMPORTANT: The profile must rest on the EPDM CR-130 type BEC acoustic strip.



Note.

SENOR
FTD MINI-47/LD. Ideal for treating wall systems with very small space..



3.

Ready to apply the desired ACOUSTIC
PANEL SANDWICH.