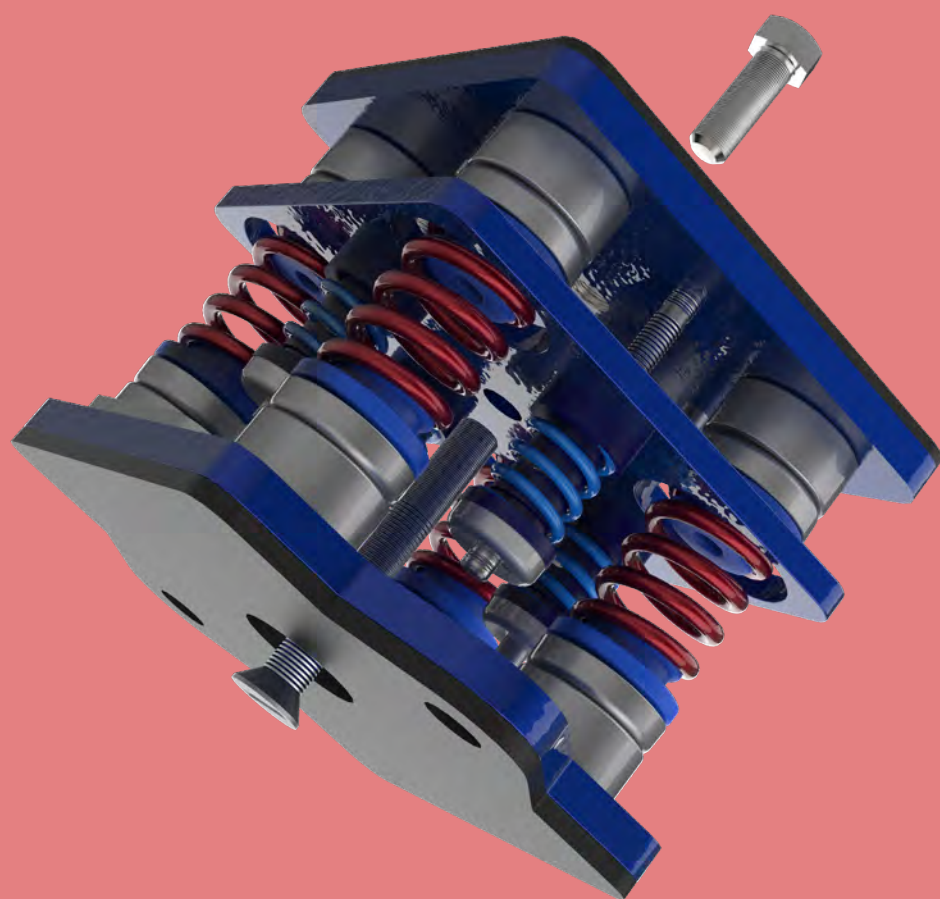


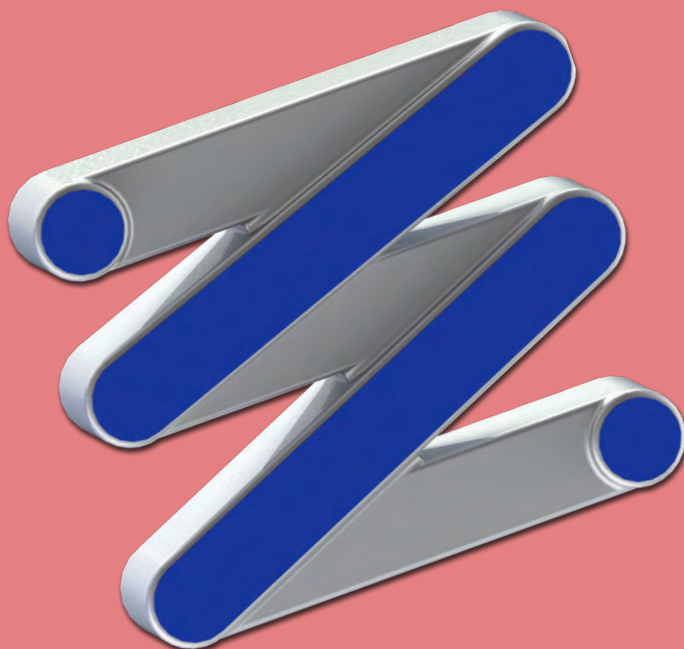
INDUSTRY CATALOGUE



BASES

MACHINES

SPLITS



SENOR

(MACHINES ON GROUND)

HEAVY MACHINERY range.

ISO 9001:2015



ANTI-ROLL SHOCK ABSORBER. MODEL EIGHT TBF.

Never before has a **HYBRID** shock absorber been so close to be nearly perfect (sophisticated **beauty**, maximum **performance**, **safety and quality**). **SENOR** has made it possible applying the latest technologies in the sector "**Vibro-mechanics**".

The **Mod.EIGHT TBF**; They are **ANTI-ROLL** shock absorbers designed for the protection of machinery against vibrations shock and blows in the range of low, medium and high frequencies Hz. (Recommended for equipment that works from 450 rpm on).

It is a **shock absorber in its most advanced form**. To create this new line of shock absorbers we have needed a large dose of imagination and technological innovation. More than re-designing them we have reinvented them inside and out, taking a turn towards elegance. The result is an incredible all-in-one shock absorber, a work of art combined with a touch of engineering that lives up to its proven effectiveness.

"Patented"

P.T. 201330255

(EIGHT - TBF)

HYBRID SHOCK ABSORBER



Everything changes.
"NOVELTY"

"Patented"

P.T. 201330255

ANTI-ROLL SHOCK ABSORBERS. MODEL EIGHT TBF.

They are third generation **HYBRID** shock absorbers with higher concentrated performance.

This new product range incorporates one of the most advanced security technologies. "**8 axes of stainless steel independent of the core**". It allows restrict degrees of freedom and improve compression axial of the helical system. It also provides a better settlement on account of the polymers of its ends and prevents the equipment from coming loose due to extreme weather events such as: hurricane winds, powerful storms and small earthquakes, etc ...

HYBRID SYSTEM: It is a combination between a metallic steel spring according to **DIN 2095-UNE EN 10270** with **EPOXI** treatment and two polymers renewed (**KRAIBURG-TPE**) one at each end from the spring.

System tested according to **UNE-EN ISO 10846-1:2009**.

Vibrations can now be reduced across the entire range of excitatory frequencies. The combination of these two elements make it possible to market one of the best shock absorbers of the year.



(EIGHT - TBF)

HYBRID SHOCK ABSORBER



Colour code Mod. Eight TBF.

Type of Machines: Designed to support on the ground providing Performance and Security. It is conceived to precision machines such as lifts, condensers, transformers, fans, air handling units, air conditioning units, pumps, etc. Either through benches or their direct installation on the system to be isolated.

As a rule, the centre of gravity of the units climate does not usually coincide with its geometric centre. If we look closely, this type of machines have different components inside, such as: compressor, condenser, controls, pipe connections, fans, etc.

It turns out that the heaviest parts are usually in one side of the equipment, reaching 70% of the total weight of the unit. Therefore, we should not place the same type of shock absorber in each of the support points.

Taking into account that we obtain the degree of isolation as a function of the elastic support constant and this depends, in turn, on the axial compression of the shock absorber, that is the reason why the EIGHT model TBF / ANTI-TIPPING has 4 hardnesses defined both by its colour as by its load range in Kg.

(MACHINES ON GROUND)

HEAVY MACHINERY range.

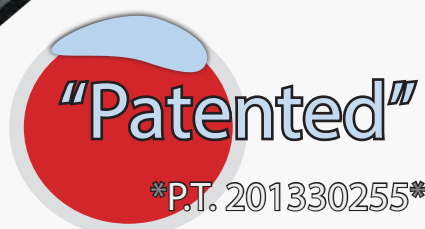


COLOR CODE
MODEL TBMF/SPLIT.

HYBRID / GREY RUBBER system:
"Ref. SE-EIGHT TBF 160 G"

Recommended for loads between **60Kg** up to **160Kg** maximum load. (This figure should never be exceeded in order to avoid saturating the Polymer).

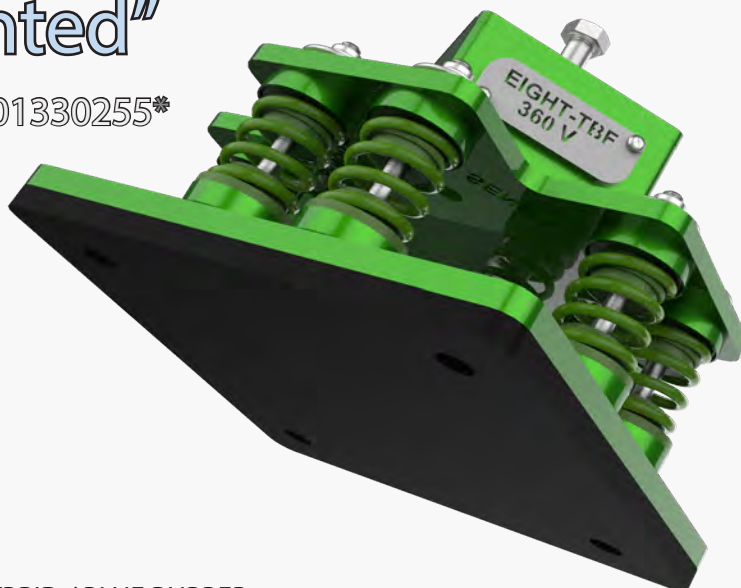
RESONANCE frequency: **3-7 Hz**.



HYBRID / GREEN RUBBER system:
"Ref. SE-EIGHT TBF 360 V"

Recommended for loads between **125Kg** up to **360Kg** maximum load. (This figure should never be exceeded in order to avoid saturating the Polymer).

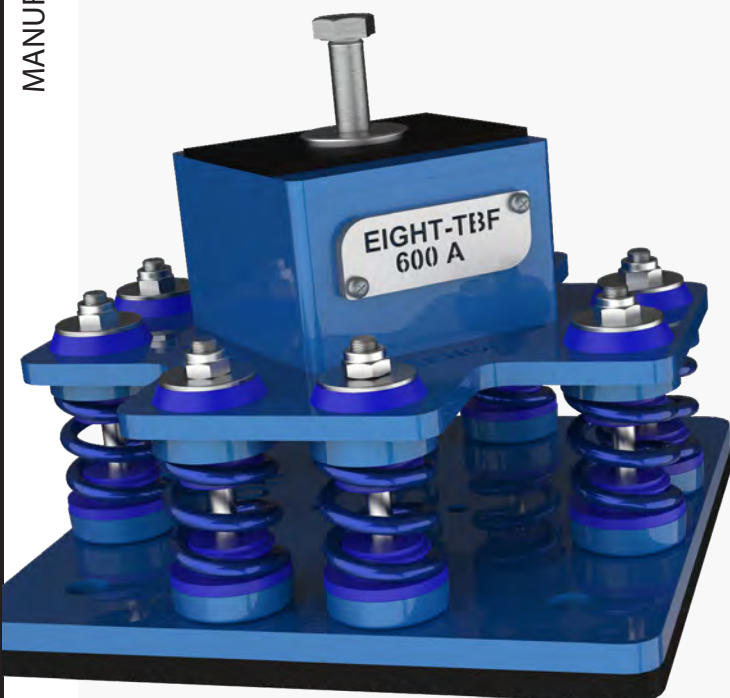
RESONANCE frequency: **3-7 Hz**.



HYBRID / BLUE RUBBER system:
"Ref. EIGHT TBF 600 A"

Recommended for loads between **285Kg** up to **600Kg** maximum load. (This figure should never be exceeded in order to avoid saturating the Polymer).

RESONANCE frequency: **3-7 Hz**.



(MACHINES ON GROUND)

HEAVY MACHINERY range.



ANTI-ROLL SHOCK
ABSORBER.
MODEL EIGHT TBF.

HYBRID / RED RUBBER system:
"Ref. EIGHT TBF 1000 R"

Recommended for loads between **525Kg** up to **1000Kg** maximum load. (This figure should never be exceeded in order to avoid saturating the Polymer).

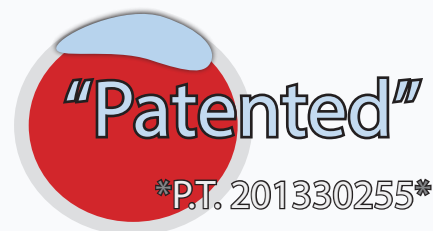
RESONANCE frequency: **3-7 Hz.**

Make yours the slogan: "With **SENOR** insulators, your life will be better".

(EIGHT - TBF)

HYBRID SHOCK ABSORBER

ANTI-ROLL SHOCK ABSORBER.
MODEL EIGHT TBF.



HYBRID SYSTEM / FIRE PROTECTION:
"Ref. EIGHT TBF"

According to the ISO 834 temperature-time curve. The **EIGHT-TBF** shock absorber complies with the fire resistance section as a mechanical fixation. (Standard UNE 37-507-88).

Thanks to its "**ANTI-TIPPING**" locking device made up of 8 solid stainless steel rods covered by an elastic protective polymer.

This renewed plastic polymer (**KRAIBURG-TPE**), allows separating the shank from the carbon steel plate, increasing the damping of the system. In addition, the steel rods provide a greater security against fire. After the flames come into contact with the shock absorber the most vulnerable parts of the same are the polymeric ones (**KRAIBURG-TPE**). These parts will disintegrate due to the high temperatures, at which point the locking device (**8 solid steel rods**) will come into action, preventing the shock absorber from separating from the machine.



Make yours the slogan: "With **SEÑOR** insulators, your life will be better".

(EIGHT - TBF)

HYBRID SHOCK ABSORBER

GRAPHIC OF RESULTS COLOR GRAY MODEL EIGHT TBF 160 G / ANTI-ROLL.



Máquina de ensayo

Volver al inicio...

EIGHT TBF 160 G (2020) 1

Receta

E.LABORATORIO P.TRANSFERENCIA/UNE-EN ISO 10846

realizada en Máquina C

Posición [107,288 mm]

▼ -9,348 mm ● -12,191 mm ▲ -17,026 mm

Fuerza [30,00 Kg ... 180,00 Kg]

▼ 60,70 Kg ● 98,70 Kg ▲ 177,40 Kg

Velocidad [0,030 mm/s]

▼ -0,150 mm/s ● -0,004 mm/s ▲ 0,003 mm/s

Frecuencia [5,00 Hz ... 50,00 Hz]

▼ 5,00 Hz ● 25,00 Hz ▲ 50,00 Hz

Vibración atenuada [Oscilación de 10,00 mm]

▼ -1611,1 % ● 97,3 % ▲ 99,6 %

▼ error ● media ▲ máximo

Frecuencia natural obtenida [Según deformación mm]

▼ 4,86 Hz ● 4,01 Hz ▲ 3,22 Hz

Jefe de Laboratorio	Responsable de Ensayo
David Muñoz López	Manuel Montoro Muñoz

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53:55 ciclo 3.490.526

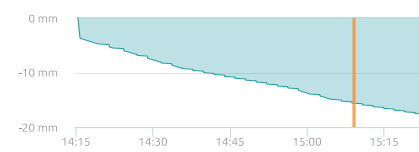
Kg

Print

Zoom

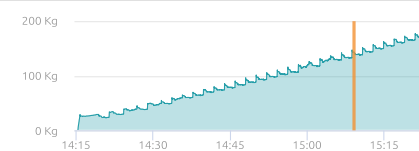
Posición

-15,639
mm



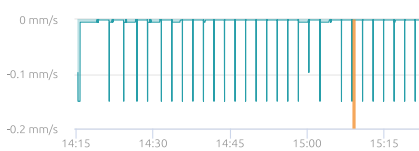
Fuerza

141,80
Kg



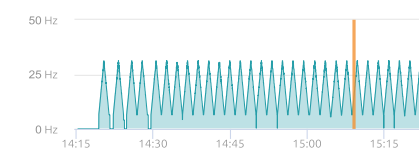
Velocidad

-0,001
mm/s



Frecuencia

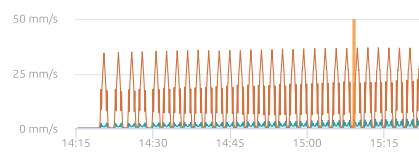
13,45
Hz



Vibración
atenuada

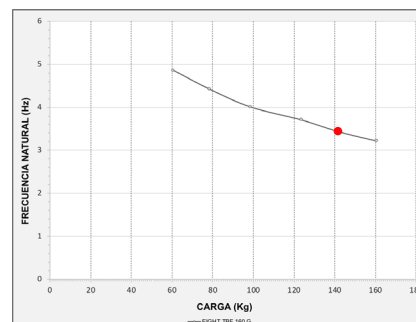
93,0 %

Recibida 1,3
mm/s
Emitida 18,8



Fuerza

141,80
Kg



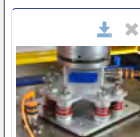
✓ Correcto

Frecuencia
resultante

3,44
Hz

1X

SENOR



15:09:09
23 may. 2020

Make yours the slogan: "With SENOR insulators, your life will be better".

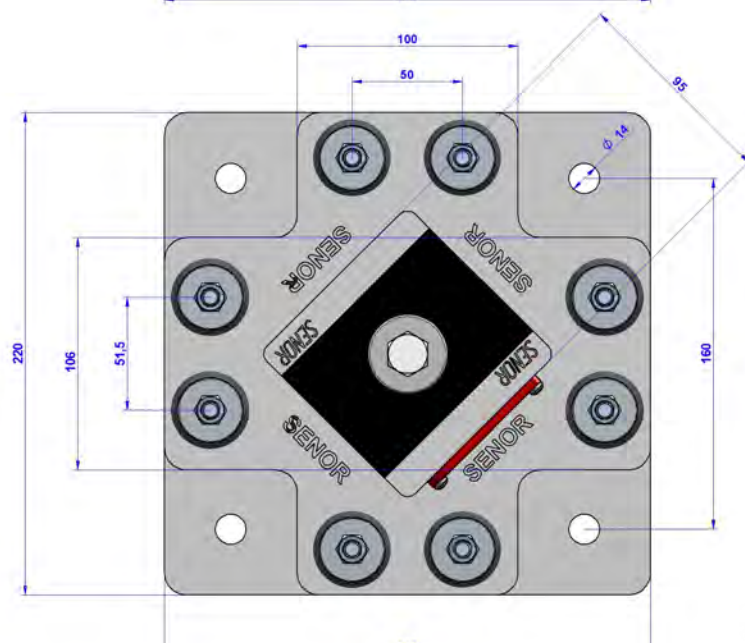
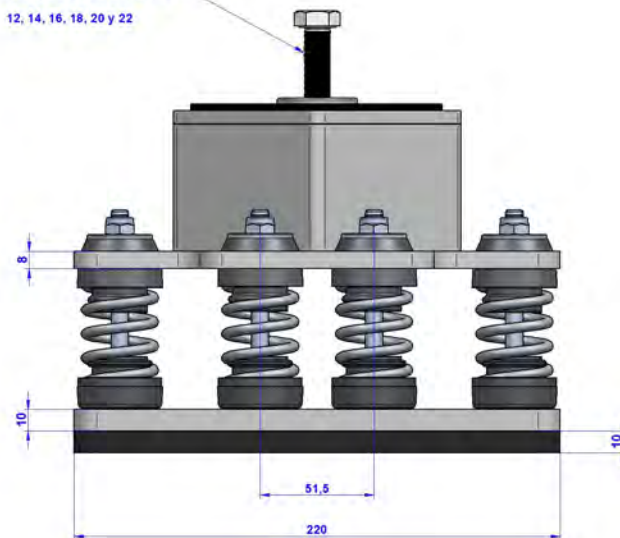
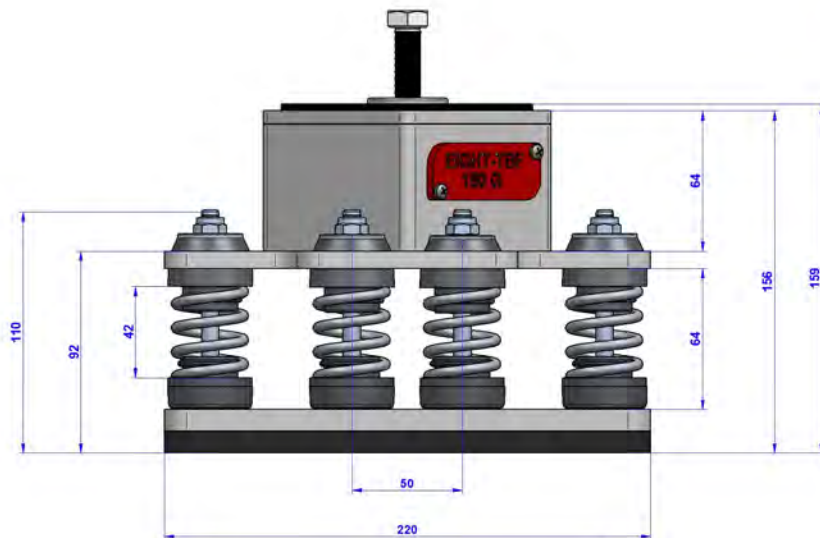
(MACHINES ON GROUND)

HEAVY MACHINERY range.

TECHNICAL DRAWINGS
MODEL EIGHT TBF-160 G / ANTI-ROLL

"Patented"
P.T. 201330255

DISPONIBLE EN MÉTRICA:
12, 14, 16, 18, 20 y 22



(d) Wire diameter: 4,00 mm.
Active coils: 4

Make yours the slogan: "With SENOR insulators, your life will be better".



(MACHINES ON GROUND)

HEAVY MACHINERY range.

GRAPH OF RESULTS COLOR GREEN MODEL EIGHT TBF 360 V / ANTI-ROLL



Máquina de ensayo

55:38

ciclo 3,546.995

Kg



[Volver al inicio...](#)

EIGHT TBF 360 V (2020)

1

Receta

E.LABORATORIO P.TRANSFERENCIA/UNE-EN ISO 10846

realizada en Máquina C

Posición [108,768 mm]

▼ -9,832 mm ● -14,474 mm ▲ -18,861 mm

Fuerza [140,00 Kg ... 380,00 Kg]

▼ 127,30 Kg ● 241,00 Kg ▲ 360,00 Kg

Velocidad [0,030 mm/s]

▼ -0,150 mm/s ● -0,005 mm/s ▲ 0,004 mm/s

Frecuencia [5,00 Hz ... 50,00 Hz]

▼ 5,00 Hz ● 25,50 Hz ▲ 50,00 Hz

Vibración atenuada [Oscilación de 10,00 mm]

▼ -25175,0 % ● 97,6 % ▲ 99,6 %

▼ error ● media ▲ máximo

Frecuencia natural [Según deformación mm]

▼ 5,00 Hz ● 3,76 Hz ▲ 3,08 Hz

Jefe de Laboratorio	Responsable de Ensayo
David Muñoz López	Manuel Montoro Muñoz

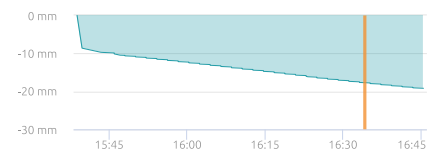
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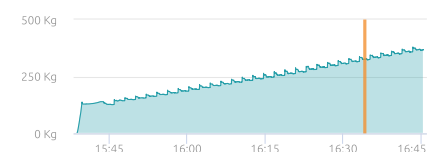
Posición

-17,726 mm



Fuerza

326,70 Kg



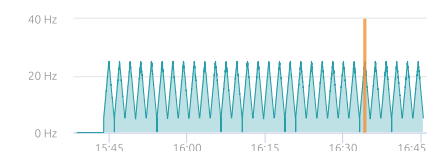
Velocidad

-0,001 mm/s



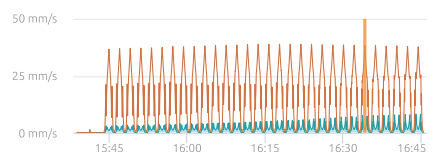
Frecuencia

13,10 Hz



Vibración atenuada

93,3 %



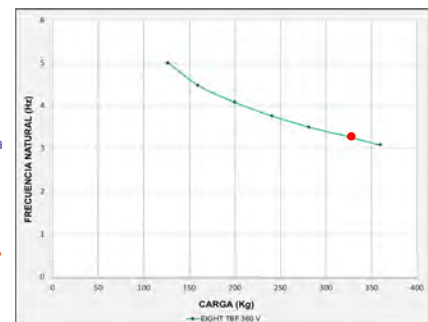
Fuerza
326,70 Kg



✓ Correcto

Frecuencia resultante

3,27 Hz



1X

SEÑOR



16:34:17
23 may. 2020

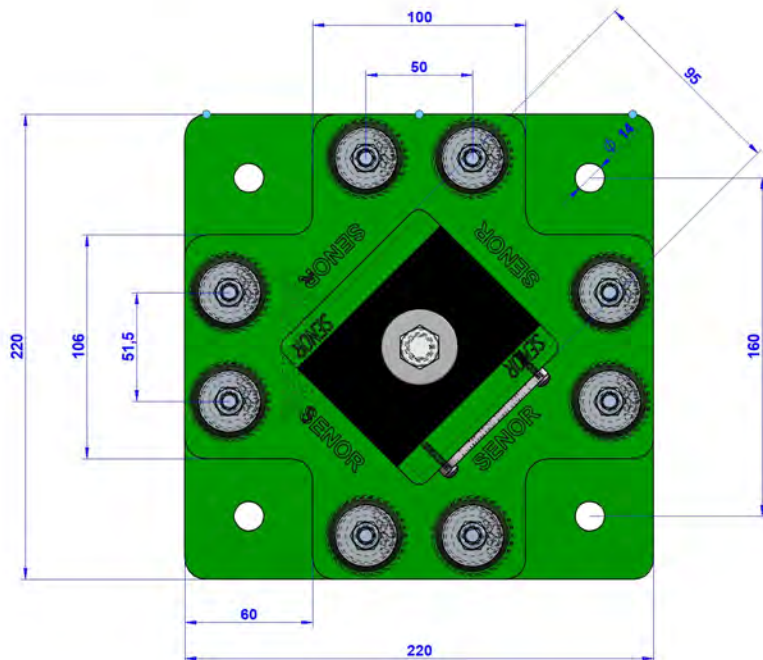
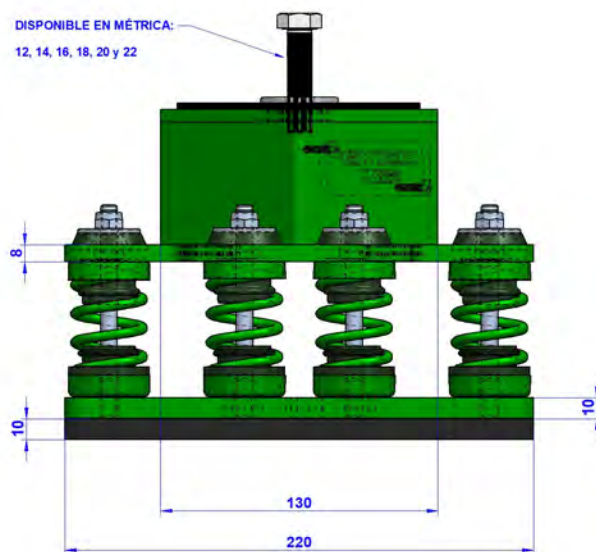
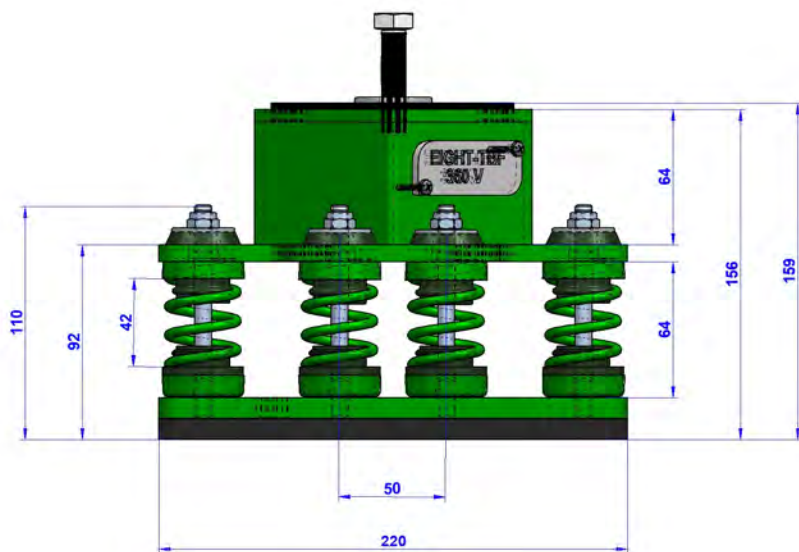
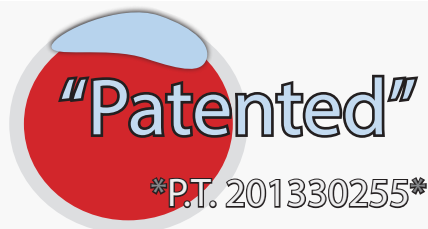
Make yours the slogan: "With SENOR insulators, your life will be better".

(EIGHT - TBF)

HYBRID SHOCK ABSORBER

TECHNICAL DRAWINGS

MODEL EIGHT TBF-360 V / ANTI-ROLL



(d) Wire diameter: 4,50 mm.
Active coils: 4,5

Make yours the slogan: "With SENOR insulators, your life will be better".



(EIGHT - TBF)

HYBRID SHOCK ABSORBER

TECHNICAL DRAWINGS

MODEL EIGHT TBF-600 A / ANTI-ROLL



Máquina de ensayo

49:05 ciclo 3.433.248

Kg

+

+

Volver al inicio...

EIGHT TBF 600 A (ENDESA)

1

Receta

E.LABORATORIO P.TRANSFERENCIA/UNE-EN ISO 10846

realizada en Máquina C

Posición [110,477 mm]

▼ -12,810 mm ● -18,742 mm ▲ 22,866 mm

Fuerza [300,00 Kg ... 620,00 Kg]

▼ 284,40 Kg ● 440,40 Kg ▲ 601,40 Kg

Velocidad [0,030 mm/s]

▼ -0,150 mm/s ● -0,006 mm/s ▲ 0,010 mm/s

Frecuencia [5,00 Hz ... 50,00 Hz]

▼ 5,00 Hz ● 25,00 Hz ▲ 50,00 Hz

Vibración atenuada [Oscilación de 10,00 mm]

▼ -489,3 % ● 97,8 % ▲ 99,6 %

▼ error ● media ▲ máximo

Frecuencia Natural [Según deformación mm]

▼ 5,80 Hz ● 3,63 Hz ▲ 3,04 Hz

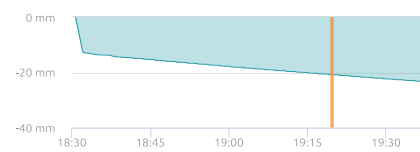
Jefe de Laboratorio	Responsable de Ensayo
David Muñoz López	Manuel Montoro Muñoz

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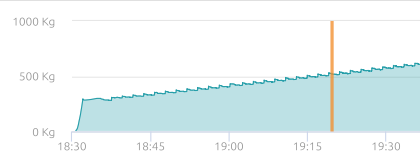
Posición

-20,829 mm



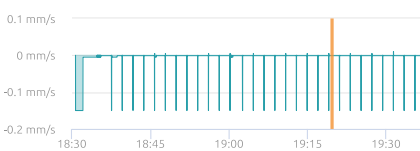
Fuerza

520,40 Kg



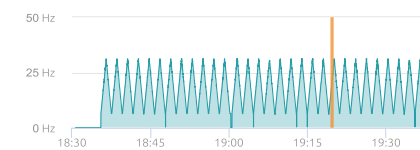
Velocidad

-0,001 mm/s



Frecuencia

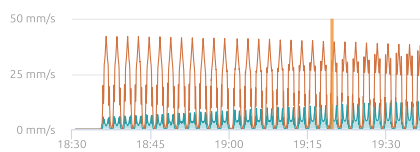
14,60 Hz



Vibración atenuada

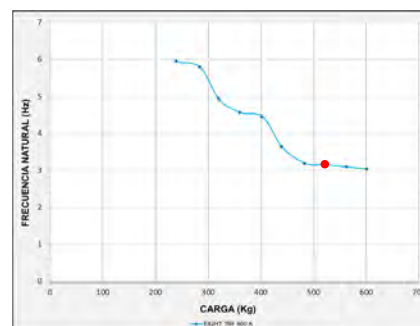
95,1 %

Recibida 1,3 mm/s
Emitida 26,7 mm/s



Fuerza

520,40 Kg



Correcto

Frecuencia resultante

3,15 Hz

Correcto

1X

SENOR

19:19:37
19 may, 2020

Make yours the slogan: "With SENOR insulators, your life will be better".

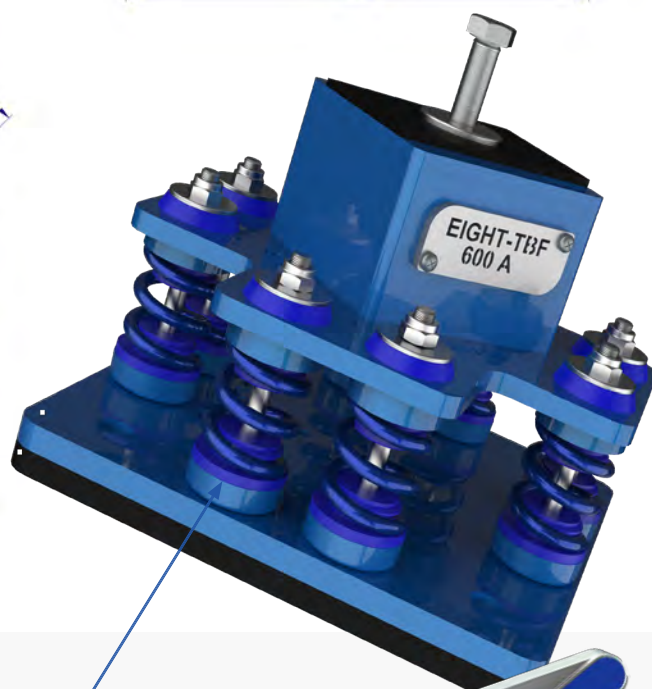
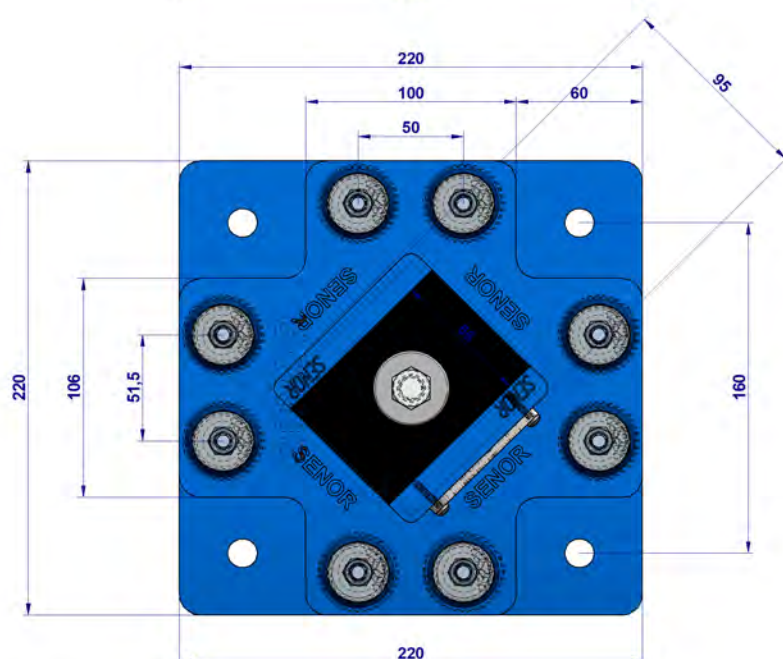
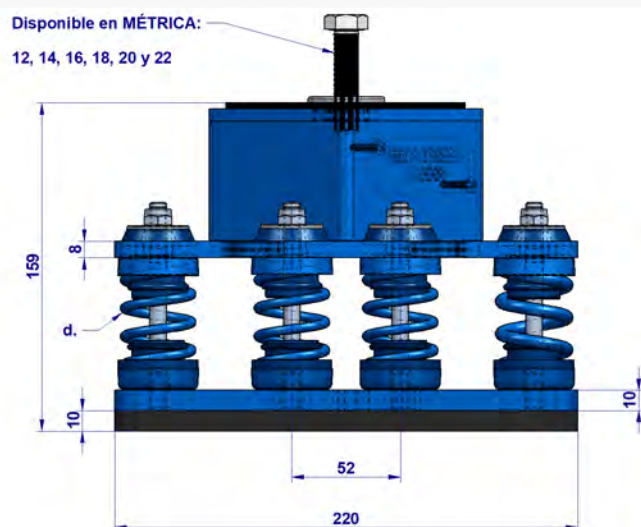
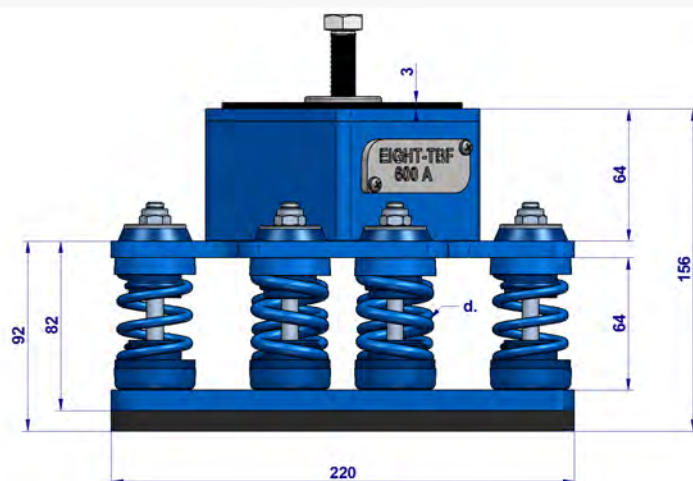
HEAVY MACHINERY range.

TECHNICAL DRAWINGS

MODEL EIGHT TBF-600 A / ANTI-ROLL

"Patented"

P.T. 201330255



(d) **Wire diameter:** 5,30 mm.
Active coils: 4,56

Make yours the slogan: "With **SENIOR** insulators, your life will be better".



SEÑOR

(MACHINES ON GROUND)

HEAVY MACHINERY range.

GRAPH OF RESULTS COLOR RED
MODEL EIGHT TBF 1000 R / ANTI-ROLL.



Máquina de ensayo

44:39

ciclo 645.426

Kg



Volver al inicio...

EIGHT TBF 1000 R

1

Receta

E.LABORATORIO P.TRANSFERENCIA/UNE-EN ISO 10846

realizada en Máquina C

Posición [144,269 mm]

▼ -15,381 mm ● -19,998 mm ▲ -24,486 mm

Fuerza [500,00 Kg ... 1.000,00 Kg]

▼ 526,60 Kg ● 725,60 Kg ▲ 994,60 Kg

Velocidad [0,030 mm/s]

▼ -0,150 mm/s ● -0,006 mm/s ▲ 0,010 mm/s

Frecuencia [5,00 Hz ... 50,00 Hz]

▼ 5,00 Hz ● 25,00 Hz ▲ 50,00 Hz

Vibración atenuada [Oscilación de 10,00 mm]

▼ -561,1 % ● 97,7 % ▲ 99,6 %

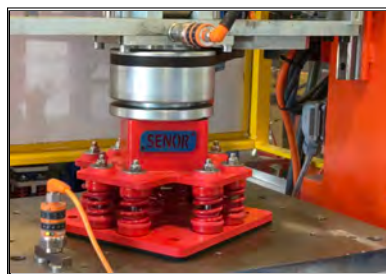
▼ error ● media ▲ máximo

Frecuencia natural [Según deformación mm]

▼ 5,65 Hz ● 3,75 Hz ▲ 3,01 Hz

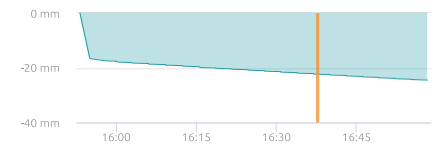
Jefe de Laboratorio	Responsable de Ensayo
David Muñoz López	Manuel Montoro Muñoz

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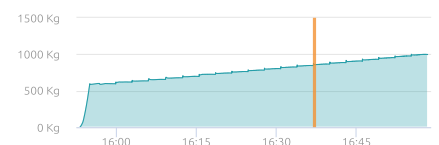
Posición

-22,337 mm



Fuerza

860,60 Kg



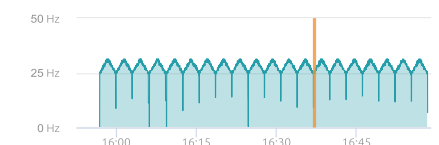
Velocidad

-0,001 mm/s



Frecuencia

18,00 Hz

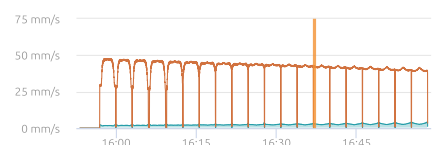


Vibración atenuada

96,1 %

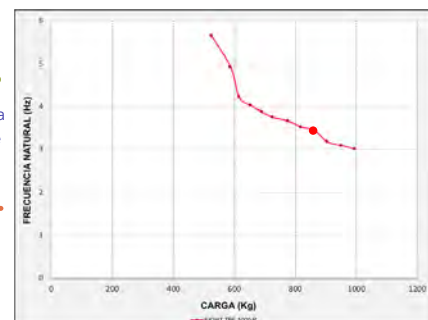
Recibida 1,6 mm/s

Emitida 41,6 mm/s



Fuerza

860,60 Kg



✓ Correcto

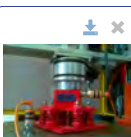
Frecuencia resultante

3,45 Hz



1X

SENOR



16:37:44
11 oct. 2018

Make yours the slogan: "With SENOR insulators, your life will be better".

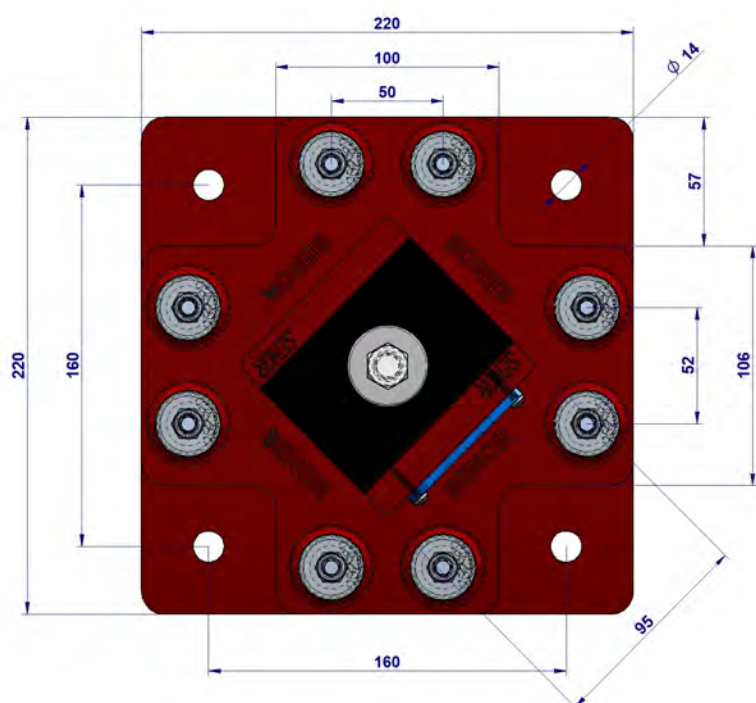
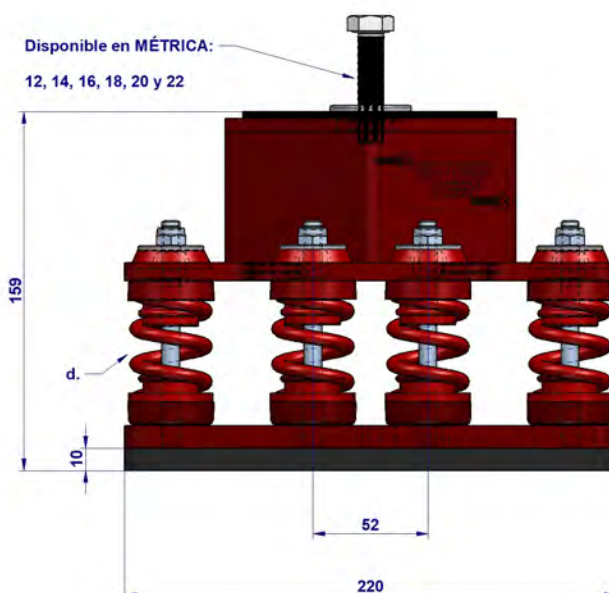
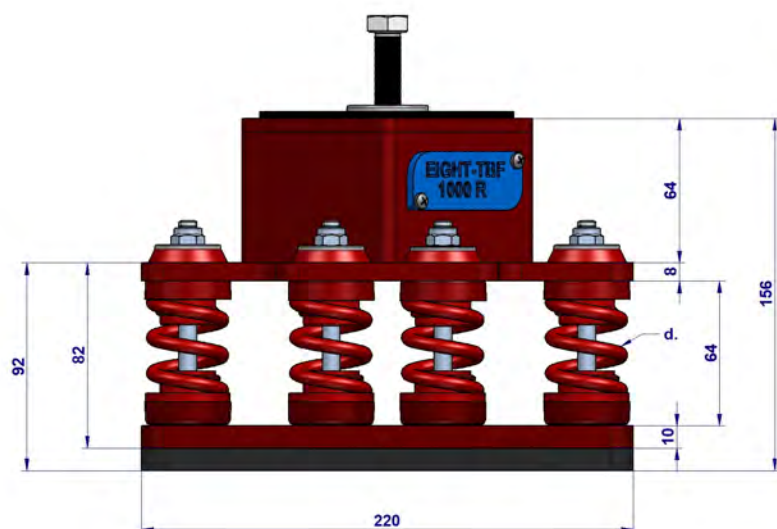
HYBRID SHOCK ABSORBER

TECHNICAL DRAWINGS

MODEL EIGHT TBF-1000 R / ANTI-ROLL

"Patented"

P.T. 201330255



(d) **Wire diameter:** 5,85 mm.
Active coils: 4,3

Make yours the slogan: "With **SENOR** insulators, your life will be better".

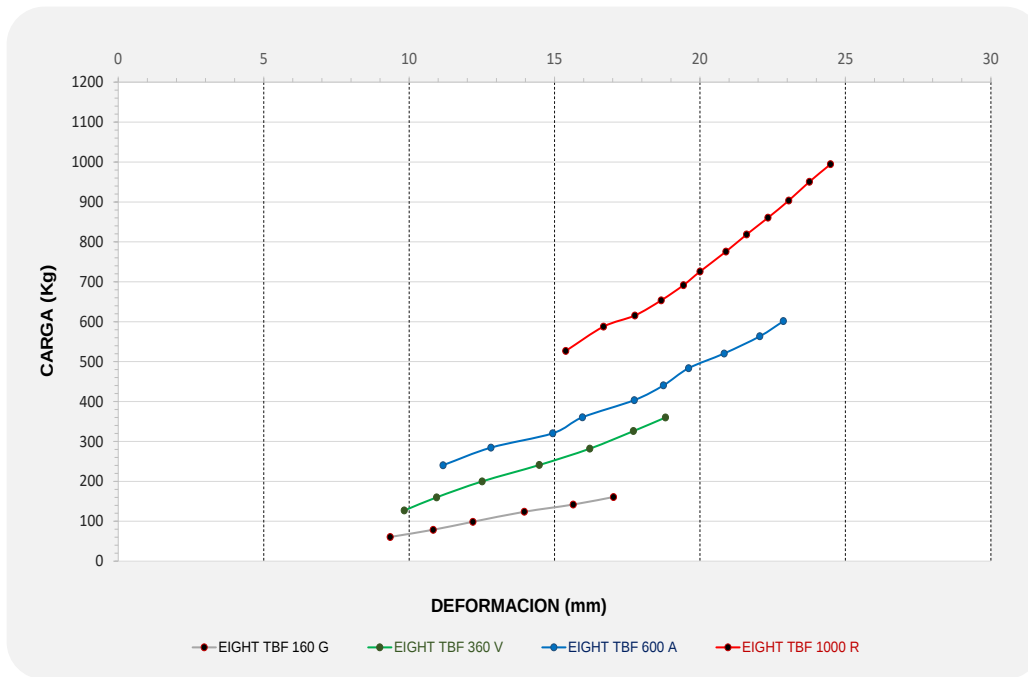


(EIGHT - TBF)

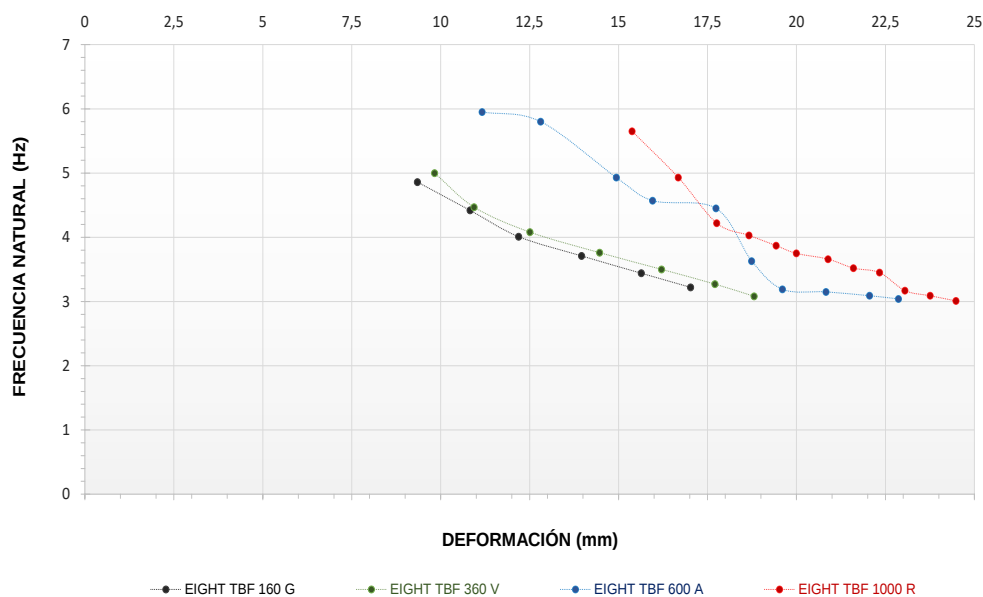
HYBRID SHOCK ABSORBER

GRAPH OF RESULTS BY COLORS EIGHT TBF / ANTI-ROLL MODEL.

"GRAPH 1"



"GRAPH 2"



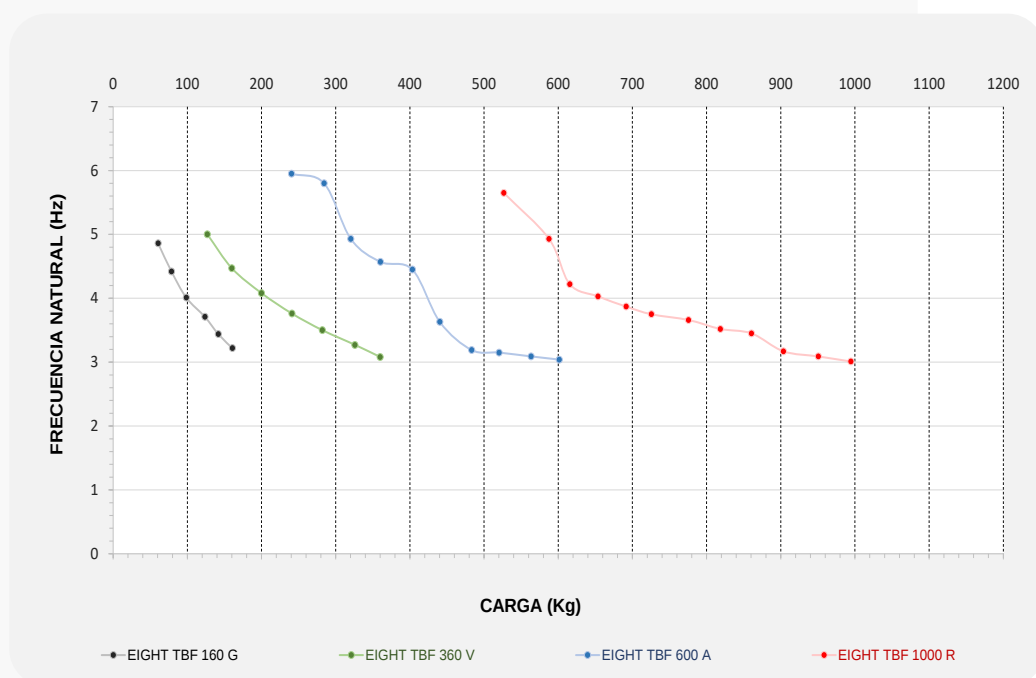
(MACHINES ON GROUND)

HEAVY MACHINERY range.

GRAPH OF RESULTS BY COLORS
EIGHT TBF / ANTI-ROLL MODEL.



"GRAPH 3"



Make yours the slogan: "With **SENOR** insulators, your life will be better".



(MACHINES ON GROUND)

HEAVY MACHINERY range.

CERTIFICATES MODEL EIGHT-TBF.

CERTIFICATES.

That all our products in the industry range for the support of MACHINES, have an aging life of over 3000 hours Florida.

UV and Weather Resistance Tests according to PV3930 (Florida).

Instrumentation:

Test Results after 3000 hours, according to CIELAB (DIN 6174) and DIN EN 20105-A02.
Xenon Test Chamber with water spray mod. 3100 HS.

Colorimeter Datacolor mod. Spectroflash 450.

Zwick Durometer.

Weathering condition.

Test time: 3000 h
Irradiation: 0,5 W/m² (340 nm)
Black panel: 65°C
Air temperature: 35-45°C
Relative humidity: 60 - 80%

"Patented"

P.T. 201330255

SENIOR Certifies EIGHT TBF/ANTI-ROLLING MODEL.

All our products from the industry range "MACHINES ON FLOOR" for the support of machines on a metal structure or floor of the **EIGHT TBF / ANTI-ROLL**, have an optimal aging life of 10 years, as long as their installation is carried out under normal conditions and they are not exposed to chemical components that can degrade the product. The **EIGHT TBF / ANTI-ROLLING** model strictly complies with **UNE 100-153-88**: air conditioning: supports antivibration: selection criteria.