MACHINES AND BENCHES

PERFORMANCE AND DESIGN AT THE EDGE OF IMPOSSIBLE



New... "BM-80/INOX" " HYBRID + MEGOL "





MACHINES AND BENCHES

New... "BM-80/INOX" Simply perfect



DESCRIPTION:

Second generation of hybrid AV mounts. **BM-80/ INOX** They are **hybrid** AV mounts in its more advanced form. To create this new line of AV mounts we have needed large doses of imagination and technological innovation. More than re-designing them, we have re-invented them inside and outside, taking a turn towards elegance. The result is an incredible all-in-one AV mount, an art work combined with a touch of engineering.

They are Hybrid second-generation AV mounts with higher concentrated performance.

Its mixed composition provides the best of "**helical steel**" properties as well as the dampening of the polymeric power "**MEGOL**". The juxtaposition of these two components makes possible launching a unique AV mount, avoiding thus, the spread of waves through the structure and reducing vibrations in the full range of exciter frequencies.

Ideal for machines working from 450 rpm. SENOR exclusive design. Exclusively manufactured by Us.





Motion stoppers:

BM-80/INOX; it incorporates **8** movement stabilizers, **4** in its bottom and **4** in its upper part. Once the mount is loaded, these stoppers match each other, limiting the transverse and longitudinal movement of the core, avoiding sudden displacements when the equipment starts and stops.

Properties of the materials.

"MEGOL" Last-generation polymer "MEGOL-IA C-UG/UVI F/P1250SPE25" According to norm UNE EN 13964.

Resonance frequency of 7 - 15 Hz.

It provides a high dampening and a perfect settlement of the spring.

SENOR develops different AV mounts...



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MEGOL-IA 20 C-UG/UVI F/P1250SPE25" according to norm UNE EN 13964.

Propiedad	Metodo	unidad	resultado
Density	ASTM D 792	g/cm3	1,19
Hardness "15 sec"	ASTM D 2240	Shore A	20
Extreme force	ASTM D 624	KN/m	11
Electricity module 100% elongation	ASTM D 638	MPa	1,8
Electricity module 300% elongation	ASTM D 638	MPa	2,2
Break tension	ASTM D 638	MPa	3,5
Elongation % break	ASTM D 638	%	800
MFI (190 °C, 49.05 N)	ASTM D 1238	g/10 min	20

Properties of the materials.

"HELICAL SYSTEM" A core formed by a steel spring, manufactured according to Norm **DIN 2095**, which provide insulation against low frequencies.

Resonance frequency of 3 - 7 Hz.

Antioxidant treatment; The finishing of the spring consists of a red powder coating **ral-330** with antioxidant treatment **interpón 700**.





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HYBRID System

SENOR develops different AV mounts...

HELICAL SYSTEM " according to norm DIN 2095.

Property	Value
Density	7833,000 kg/m^3
Thermal expansion coefficient	0,000013 /C
Thermal conductivity	0,035 kW/m-C
Specific heat	490,000 J/kg-C
Elasticity module	200947,953 MPa
Poisson's ratio	0,290
Elastic limit	262,009 MPa
Break tension	368,548 MPa
% of elongation	0,000

Made of **ZAMAK-5** (it is an alloy of Zinc with aluminium, magnesium and copper. It is hard, high resistance to traction, density 6,6 g/cm³ and a melting temperature of 386 °. According to **UNE-EN 12844**. Coated with **INTERPON 700** (**epoxy resins and polyester**) providing durability against oxidation of more than **2000** saline hours.





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(B) Zamak-5

Property	Value
Density	2712,000 kg/m^3
Thermal expansion coefficient	0,000023 /C
Thermal conductivity	0,221 kW/m-C
Specific heat	920,000 J/kg-C
Elasticity module	68947,570 MPa
Poisson's ratio	0,330
Elastic limit	27,579 MPa
Break tension	68,948 MPa
% of elongation	0,000



BM-80/INOX 120 V



BM-80/INOX 160 A

SENOR develops different AV mounts...

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BM-80/INOX 200 R



HYBRID System

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MAXIMUM LOAD.

The natural frequency indicated is valid for the maximal load.

NOTE: Isolation degree for a linear system with only one degree of freedom (**pure vertical translation**) and rigid support surface.

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	Maximum results chart-2			
Reference	Max. load value (Kg)	Deflection (mm)	Rigidity (KN/m)	Natural freq. (Hz)
M-80/INOX 120 V	130	13	96,4	4,00
140 120 100 • Eje 80 60	7,74 Hz	80 Kg	120 Kg 120 Kg 100 Kg 4,65 Hz	16,0 14,0 12,0 10,0 8,0 6,0 4,0 2,0
	20 Kg Deformación Muelle 2 3 4 5 6 1) Mancia Teórica (Hz) ma Híbrido VERDE - K. Elást	5,20 Hz 7 8 9 10 10,2	4,20 Hz 11 12 13 14 20	0,0

MAXIMA LOAD.

The natural frequency indicated is valid for the maximal load.

NOTE: Isolation degree for a linear system with only one degree of freedom (**pure vertical translation**) and rigid support surface.



HYBRID System

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Maximum results chart-3

Reference Max. load value (Kg)		Deflection (mm)	Rigidity (KN/m)	Natural Freq. (Hz)	
В	M-80/INOX 160 A	160	12	135,6	4,10



MAXIMUM LOAD.

The natural frequency indicated is valid for the maximum load.

NOTE: Isolation degree for a linear system with only one degree of freedom (**pure vertical translation**) and rigid support surface.





Mew... "BM-80/INOX" Simply partie

Maximum results chart-4 Reference Max. load value (Kg) Deflection (mm) Rigidity (KN/m) Natural Freq. (Hz) **BM-80/INOX 200 R** 210 12,4 173,8 4,10 270 240 16,0 210 Kg 14,0 210 180 Kg 12,00 Hz 12,0 Fo (Hz) Frecuencia Propio 180 Eiem 150 Kg Curvatura MEGOL 10,0 150 8 10 Hz 8,0 120 6,90 F 120 Kg 6,0 90 5 00 Hz 4,40 Hz 60 Kg 90 Kg 5.90 Hz 60 4,0 4,10 Hz 30 Kg 30 2,0 Carga (Kg) 0.0 0 0 9 10 11 12 13 14 1 2 3 4 5 6 7 8 10,50 Fecha (mm) F. Resonancia Teórica (Hz) Sistema Híbrido ROJO - K. Elástica=173813 N/m

MAXIMUM LOAD.

The natural frequency indicated is valid for the maximum load.

NOTE: Isolation degree for a linear system with only one degree of freedom (**pure vertical translation**) and rigid support surface.



BM-80/INOX 80 G

HYBRID System

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BM-80/INOX 120 V

Grey HYBRID System:

load between 10-80 Kg

Green HYBRID System:

load between 20-130 Kg

Blue HYBRID System:

load between 30-160 Kg

Red HYBRID System:

load between 30-210 Kg



BM-80/INOX 200 R

ADVANTAGES

- ✓ Patented HYBRID system
- \checkmark Different colours according to load
- ✓ Quick and easy installation
- ✓ "TPC": Motion control stoppers
- ✓All screws provided in stainless steel.
- ✓ Metrics: Check availability + retail price



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	BM-80 INOX 80 G	
1	PLACA ZAMAK-5 SUPERIOR	1
2	PLACA ZAMAK-5 INFERIOR	1
3	PLANTILLA ASENTAMIENTO BEC-3	1
4	ESTABILIZADOR INFERIOR + PROTECCIÓN EN MEGOL	4
5	ARANDELA EN ACERO INOXIDABLE	1
6	SOPORTE POLIMÉRICO MEGOL	8
7	OREJETAS INFERIORES DE FIJACIÓN A SUELO	2
8	PLANTILLA SUPERIOR BEC-3	1
9	TORNILLO DE AJUSTE DIN 933 / INOXIDABLE	1
10	MUELLE KF-25	2
11	MUELLE KF-15	2

•SENOR Certifies.

All of our **industry range** products for supporting machines on a structure of **BANCADA BM80/INOX**, series, have a optimum shelf life time of **10 years** as long as its installation is done under normal environmental conditions and they are not exposed to chemicals which may degrade the product.