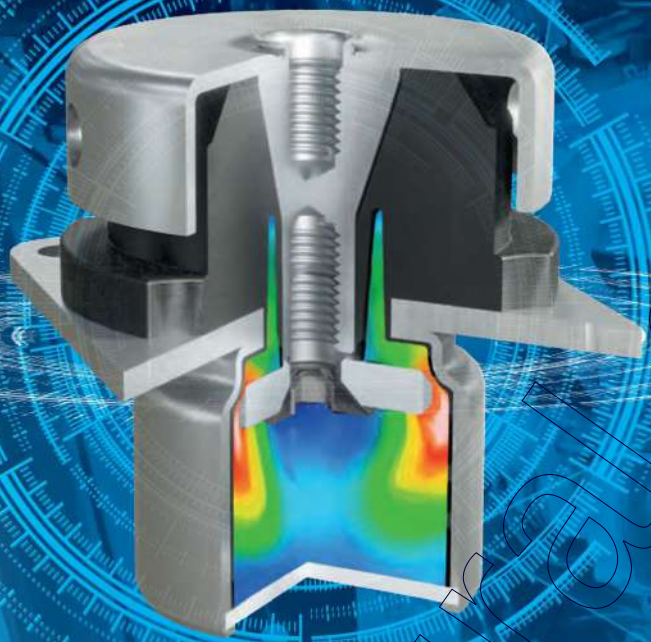
AMC
MECANOCAUCHO



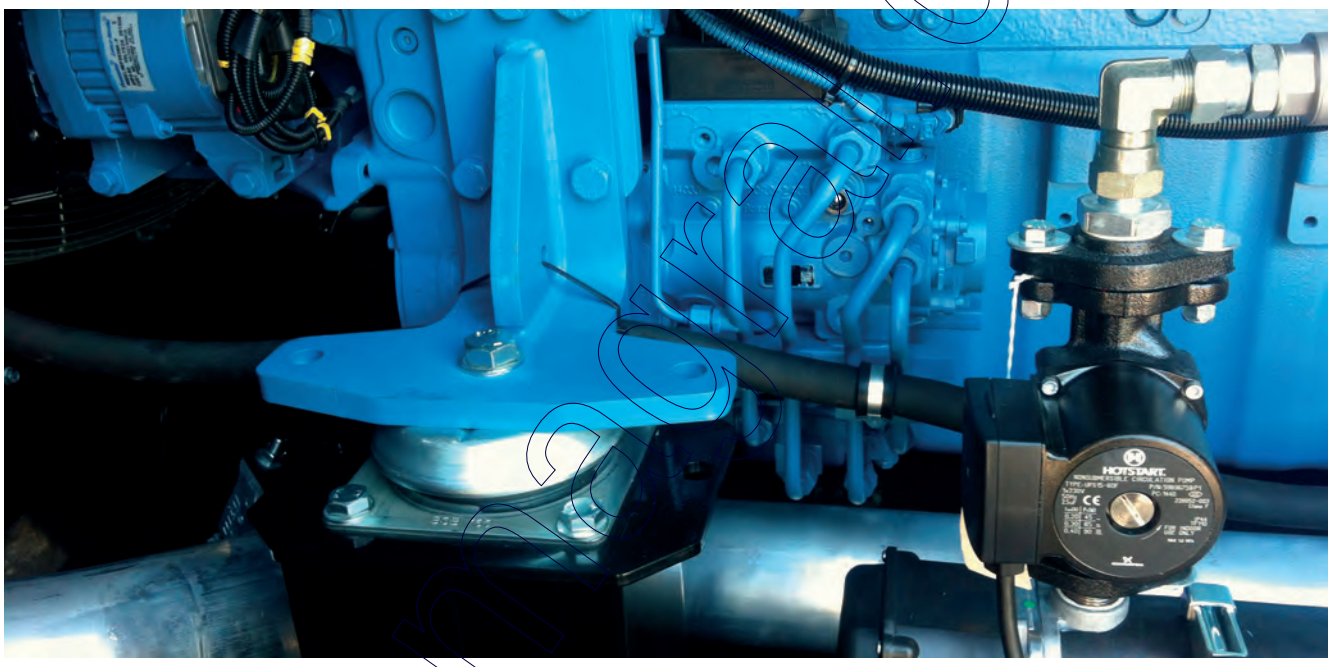
RUBBER METAL

Anti vibration mounts
AMC MECANOCAUCHO®

APPLICATIONS

Our products are used in sectors such as:

- Generation of electrical energy
- Air compression
- Pumping of liquids
- Industrial vehicles
- Machine Tools
- Marine propulsion and auxiliary equipment
- Agricultural and construction equipment machinery
- Acoustic isolation of premises and sites
- Vibrating screens, Hoppers, Silos, Feeder screens



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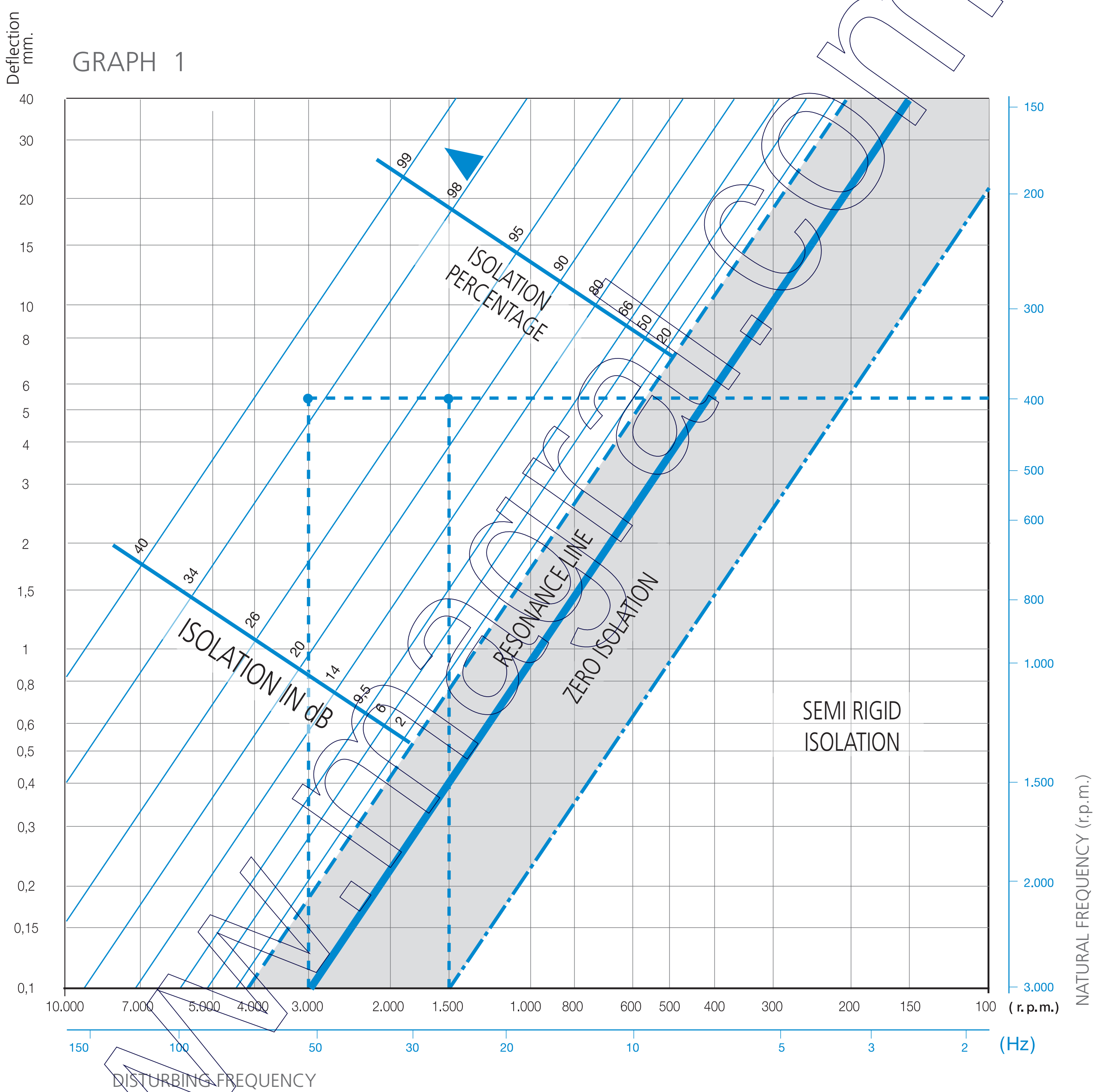
VIBRATION ISOLATION EFFICIENCY GRAPH

GRAPH 1



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INDEX DEPENDING ON THE APPLICATION

MOBILE APPLICATIONS: ENGINES, GENERATORS, COMPRESSOR PUMPS

STATIC APPLICATIONS: ENGINES, GENERATORS, HYDRAULIC PUMPS AND COMPRESSORS

BUSHINGS

MOUNTS FOR HEAVY LOADS

MACHINE LEVELLING MOUNTS

ELASTIC COUPLINGS

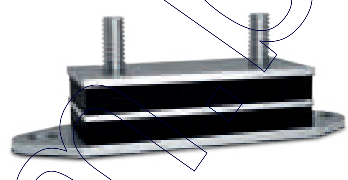
RUBBER BLOCKS AND MATS

BOBBINS & BUFFERS

OTHERS

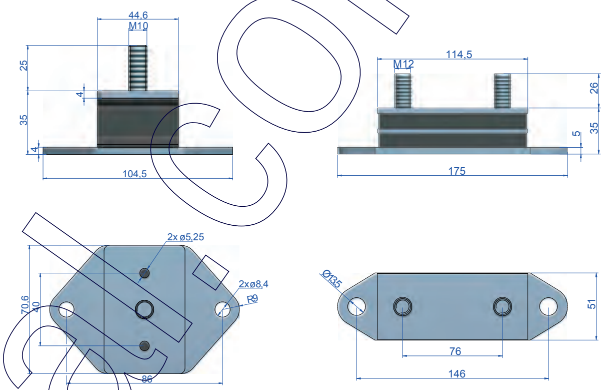
SANDWICH ANTI VIBRATION MOUNTS

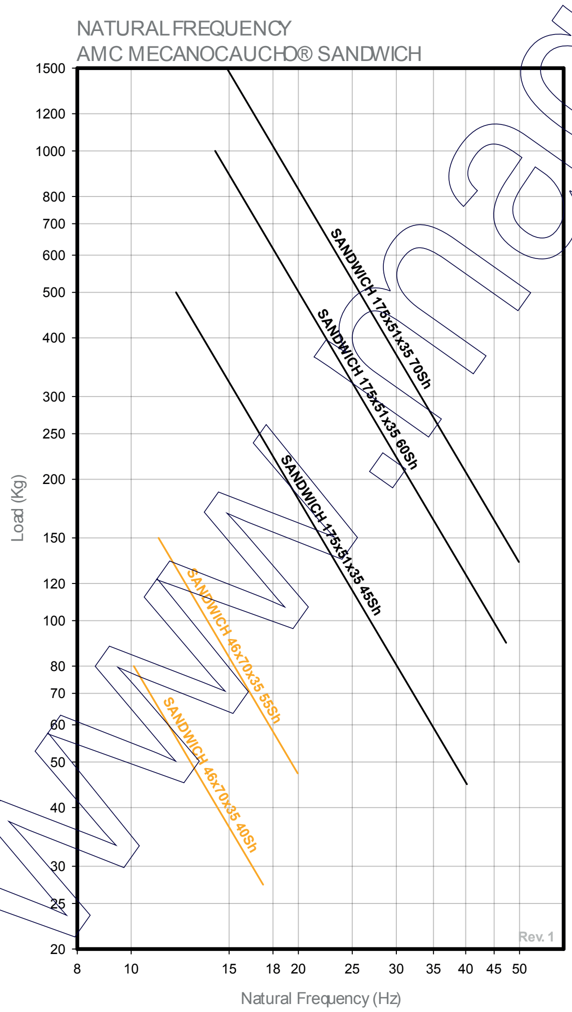
The AMC-MECANOCAUCHO® type Sandwich anti vibration mounts are ideal for static or mobile applications for loads ranging from 50 to 1500kg.
The Sandwich anti vibration mounts consists of three metal plates joined by two rubber blocks.
This is particularly interesting for mobile applications where the vertical movement has to be controlled.

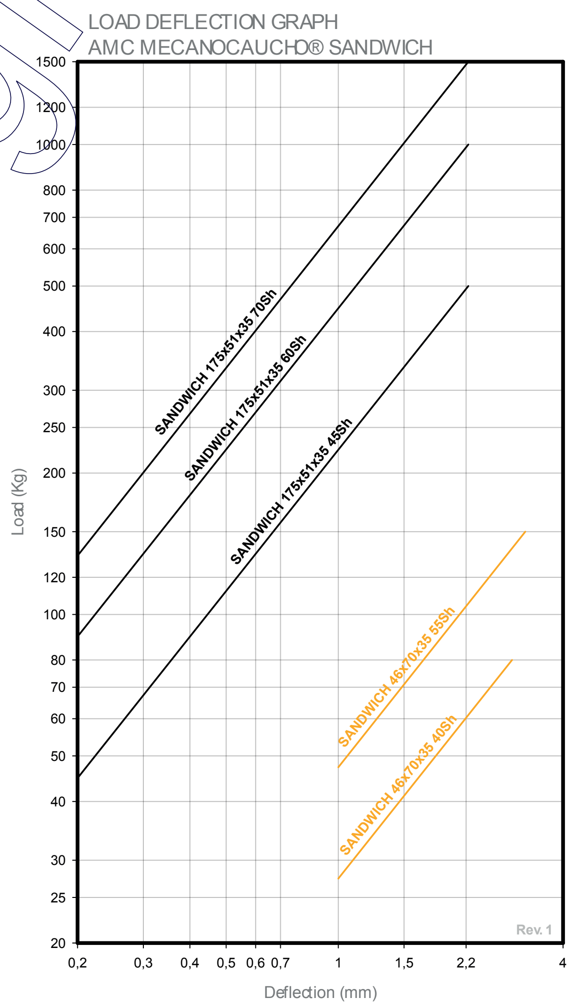


Type	Shore	Weight (kg)	Max. Load (kg)	Code
Sandwich-46x70x35	40Sh	0,332	80	**180199**
	55Sh	0,332	150	**180187**
Sandwich-175x51x35	45Sh	0,775	500	**148189**
	60Sh	0,775	1000	**148190**
	70Sh	0,775	1500	**148191**

Sandwich-46x70x35 Sandwich-175x51x35







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SH

DESCRIPTION

Each mount consists of two heavy duty square outer plates with corner hole fixings fully bonded to circular profiled rubber layers separated by interleaf plates.

The AMC MECANOCAUCHO® type SH mounts provide high static and shock load capacities in compression with a minimum deflection, maintaining a low shear stiffness rate.

TECHNICAL CHARACTERISTICS

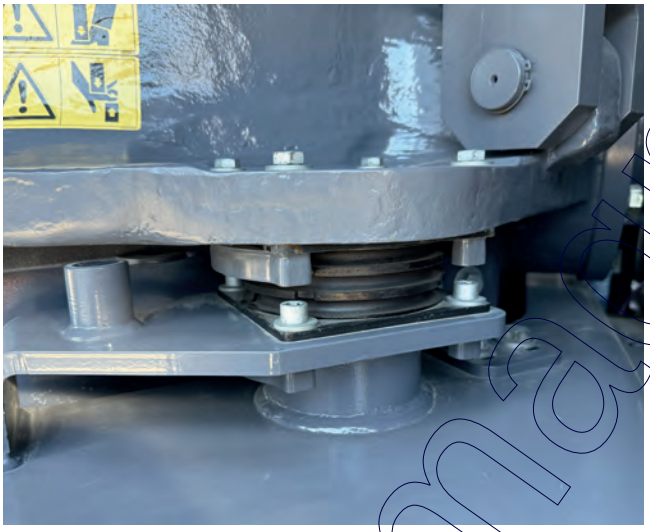
The AMC MECANOCAUCHO® type SH mounts are designed for long lasting heavy duty applications.

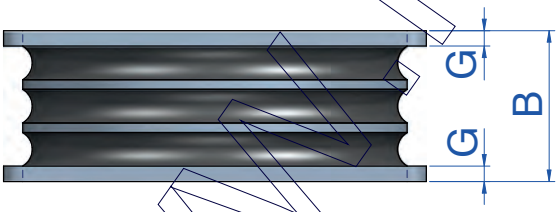
They can be supplied in 3 different hardness and 3 different sizes to suit applications where the compression load per mount is between 2 to 40 Tons.

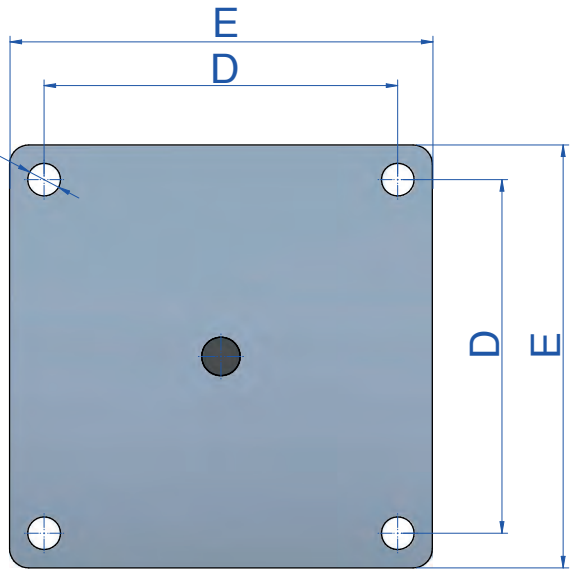
APPLICATIONS

High compression capacity, low shear stiffness and relatively low installed heights make the mounts ideal for: Vibratory rollers, Mills, Presses, Heavy machinery, Feeder screens.

Due to their high load capacity these mounts are also used as point bearings for the vibration isolation of building structures.

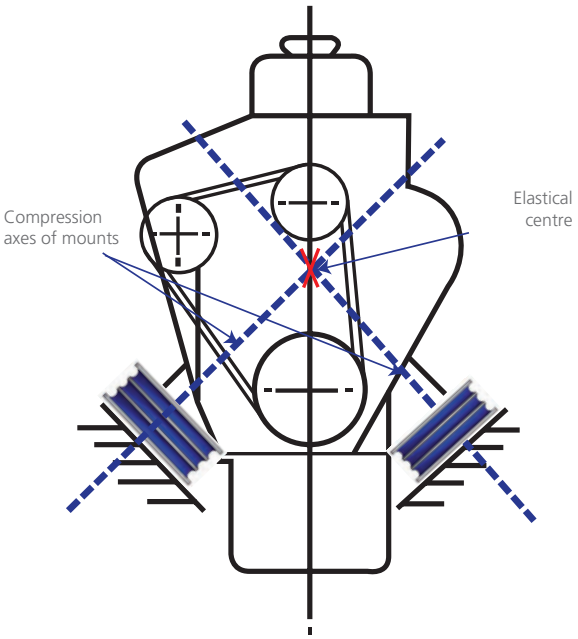




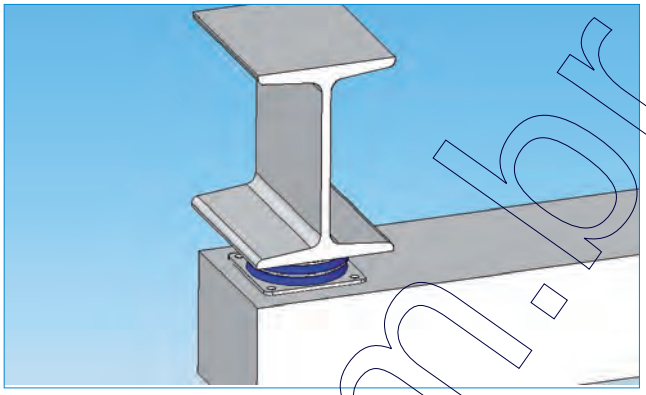


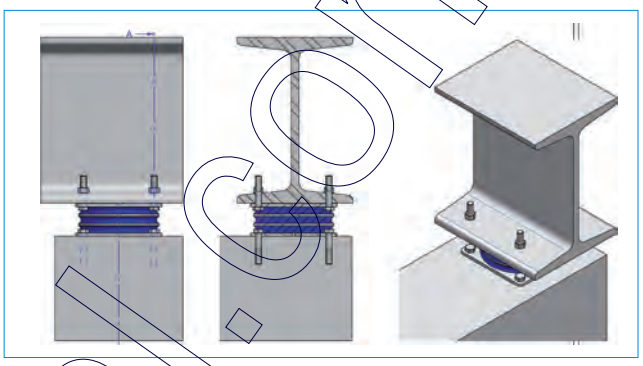
Type	B (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)	Code	Shore	Max. Load (kg)
SH 125	52	118	148	13,5	5	2,5	**148213**	45 Sh	2250
							148215	60 Sh	4500
SH 150	63	136	166	13,5	6	4,5	**148201**	45 Sh	3750
							148202	60 Sh	7500
SH 200	78,5	184	220	17	8	9	**148204**	45 Sh	6000
							148205	60 Sh	12000
SH 300	120	270	310	22	10	27	**148207**	45 Sh	15000
							148208	60 Sh	30000
							148209	70 Sh	40000

"VEE" INCLINED INSTALLATION CONFIGURATION

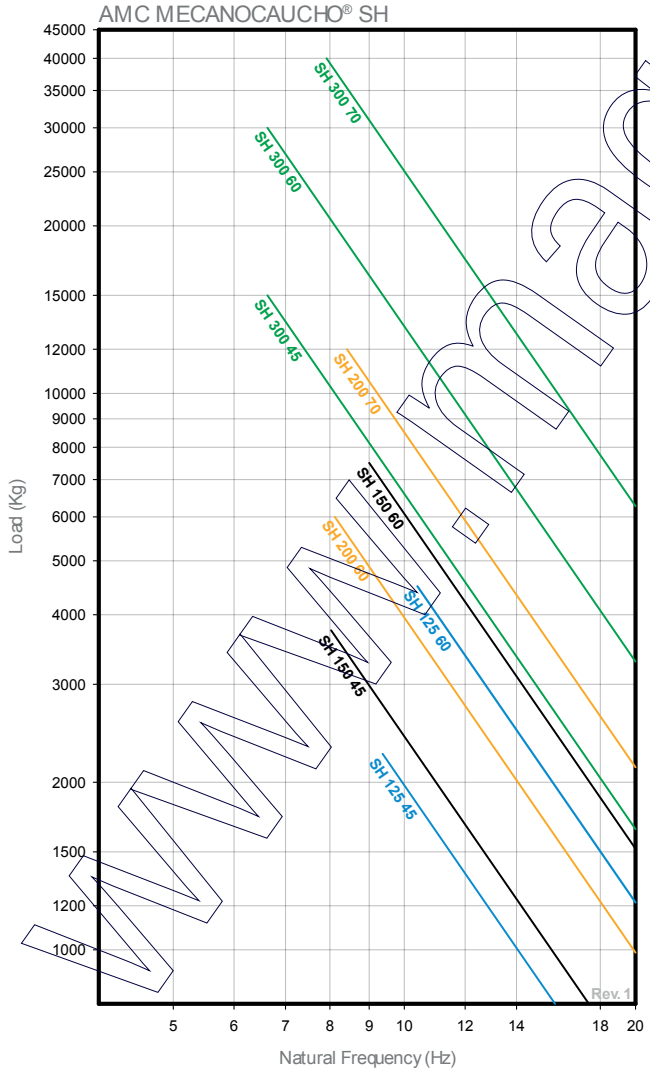


AMC MECANOCAUCHO® technical department can calculate a precise angle configuration in order to achieve an optimum compromise between isolation and stability of the suspended equipment

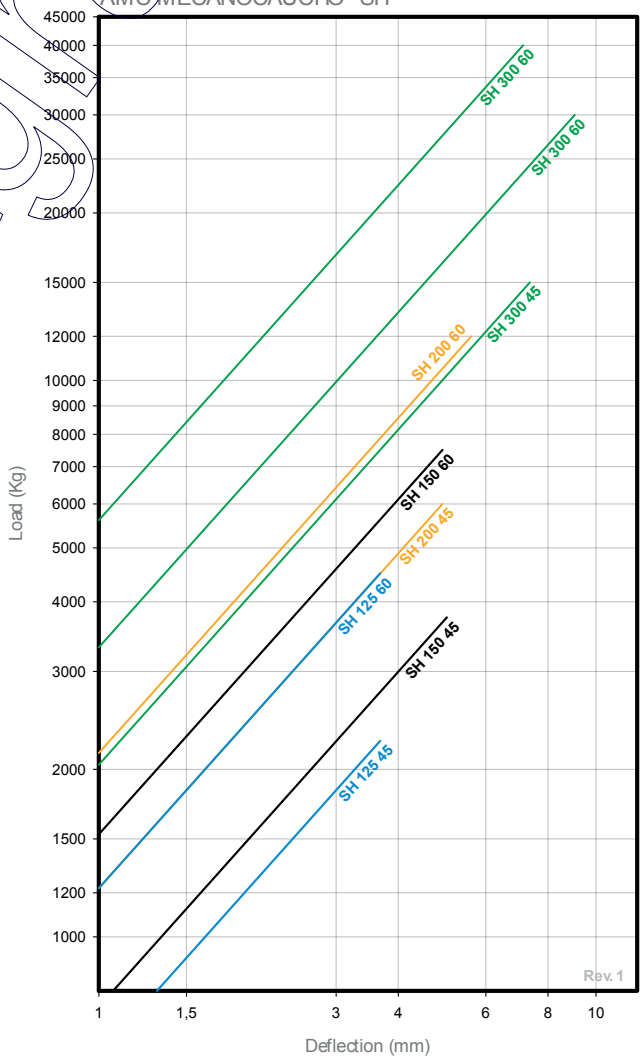




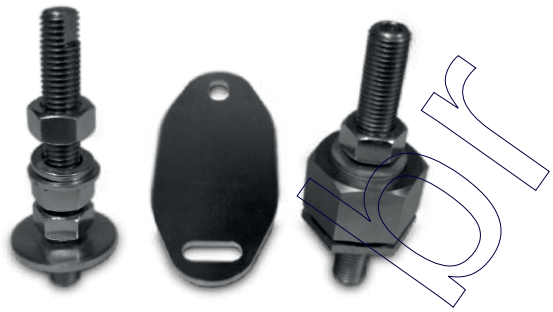
NATURAL FREQUENCY
AMC MECANOCAUCHO® SH



LOAD DEFLECTION GRAPH
AMC MECANOCAUCHO® SH



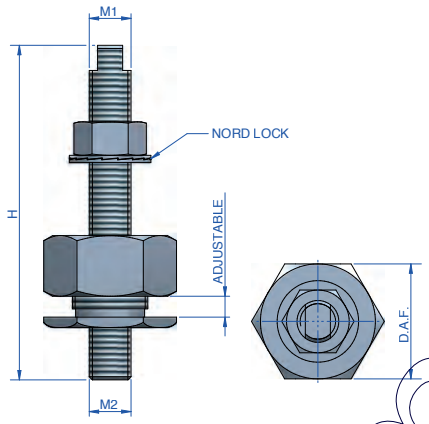
HEIGHT ADJUSTING SYSTEMS



The AMC Mecanocaucho® height adjusting systems can be used to retrofit current installations. Please take into consideration the following information:

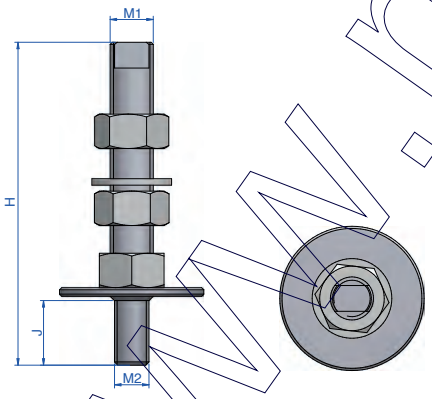
It is recommendable to settle the mountings at least 48hours before the alignment of the engine installation, especially for close coupling tolerances.

The use of high performance glue between the bolt and the mounting is advisable in order to increase the security.



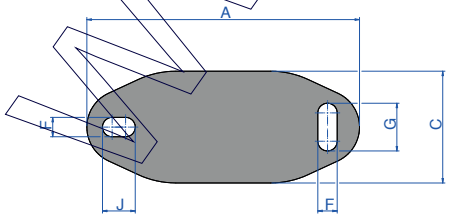
Hi-Sec

Type	Code	H (mm)	M1	M2	Adjustable (mm)	Machined head	D.A.F.	Weight (gr.)
HI-SEC	**708077**	110	M16	M12	± 5	Y	46	357
	708007	110	M16	M16	± 5	Y	46	514
	708094	130	M20	M20	± 5	N	46	775
	708079	110	M20	M16	± 10	Y	55	1095
	708029	160	M20	M20	± 10	Y	55	1011
	708005	160	M20	M20	± 10	N	55	1096
	708011	200	M24	M24	± 10	N	120	2234



Standard height adjusters

Type	Code	H (mm)	M1	M2	J (mm)	Machined head	Weight (gr.)
STUD	**708008**	110	M16	M12	25	Y	215
	708003	110	M16	M16	-	Y	285
	708004	130	M20	M20	-	N	475
	708001	100	M12	M12	-	Y	174



Shim

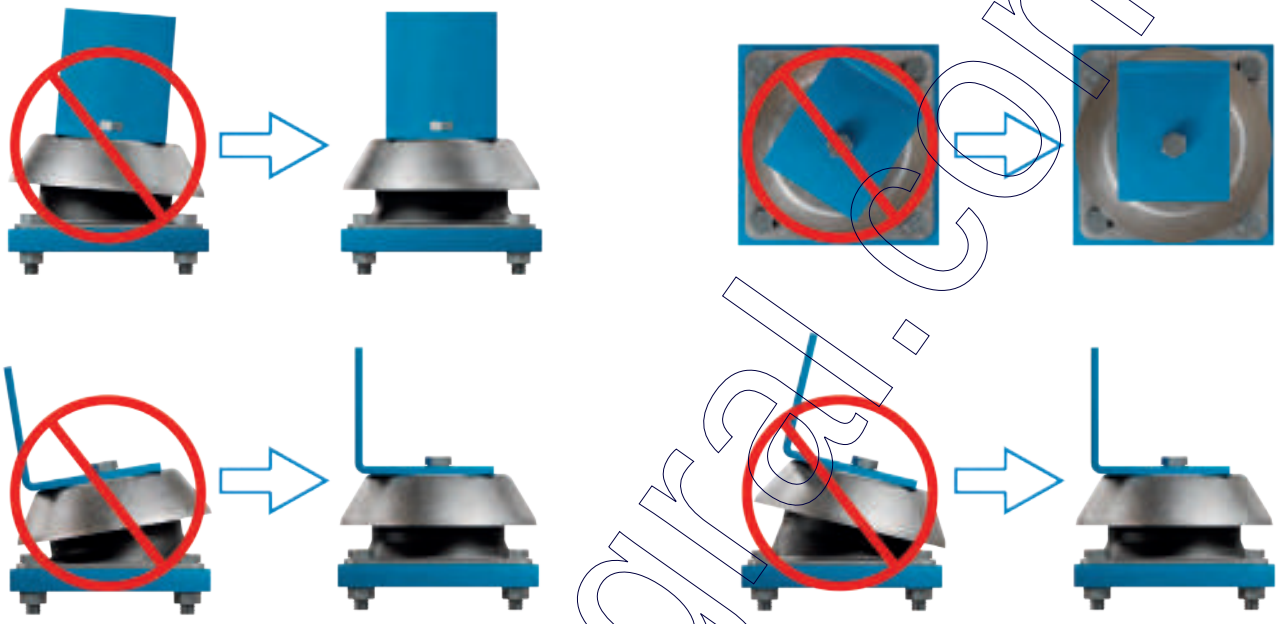
Type	Code	A (mm)	C (mm)	D (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	Weight (kg)
SMALL	**136301**	120	60	100	14	11	3	14	11	-
MEDIUM	**136302**	183	75	140	30	13	4	13	22	-
LARGE	**136303**	228	112	182	34	18	5	18	26	-

INSTALLATION PRINCIPLES

RECOMMENDATIONS FOR HOOD MOUNTS

The hood mounts should be be installed between two parallel and perfectly flat surfaces. Mounts operating tilted or twisted do not work properly. This may be due to incorrect alignment, tolerances in the building of the chassis or over-tightened torque during the installation of the Antivibration mounts.

This applies to our marine-type, BSB, BRB or Mecanodamp mounts.

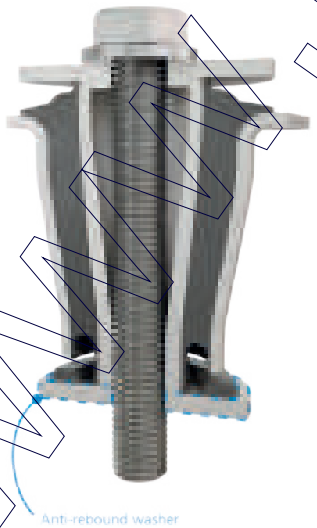


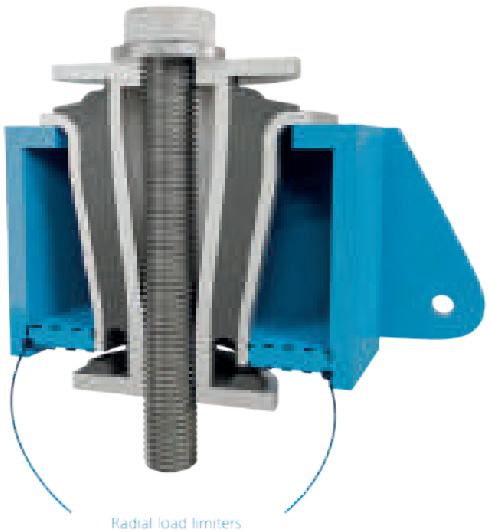
RECOMMENDATIONS FOR THE CONICAL MOUNTS

The conical mounts should always use the washers indicated for each model.

Similarly, we recommend the use of lateral limiters for cases with high loads or radial impact.

This applies to our AT, SCB, SCH or Mecanocaucho® mounts.





RECOMMENDATIONS FOR THE DSD AND DRD MOUNTS

Although it is not absolutely necessary, the AMC MECANOCAUCHO® hoods should be used in the DSD and DRD hoods. This hood distributes the load evenly in the event of overloads, and also provides protection from possible oil splashes.

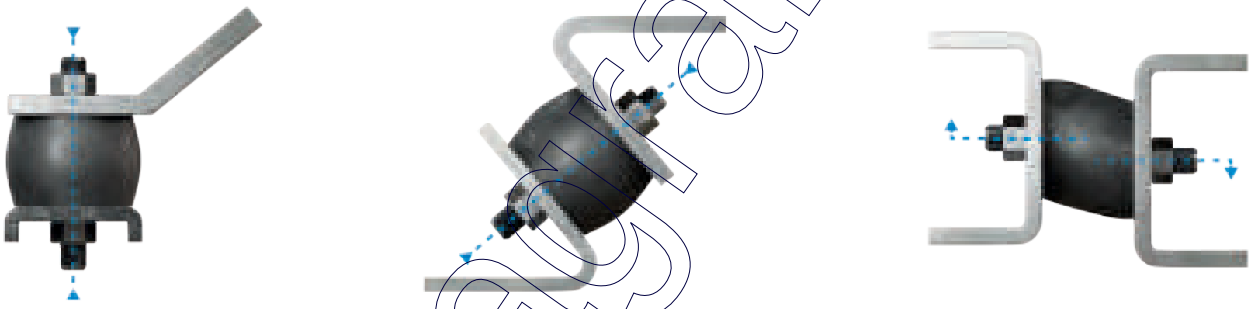
Care should be taken to make sure that the protective hood has the same or a greater diameter than that of the diameter of the rubber element.

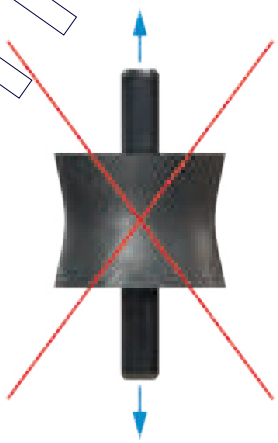
We have a standard range of Mecanocaucho® protection hoods. Check them out.

RECOMMENDATIONS FOR THE CYLINDRICAL MOUNTS

The cylindrical mounts should never work at traction. They should be used on a compression basis. To obtain greater deflection, use them at shear or shear /compression, although the maximum loads indicated in our catalogue for shear use should never be exceeded.

This applies to our bobbins, diabolo, trapezoidal or annular mounts.





RECOMMENDATIONS FOR MACHINES THAT REQUIRE ALIGNMENT

When an alignment is required between different mechanical elements of the machine, the creeping effect should be taken into account. The increased deformation produced by the creep of the elastomer leads to a "misalignment" between suspended and rigid elements, particularly during the first 48 hours of static load in the antivibration mounts.

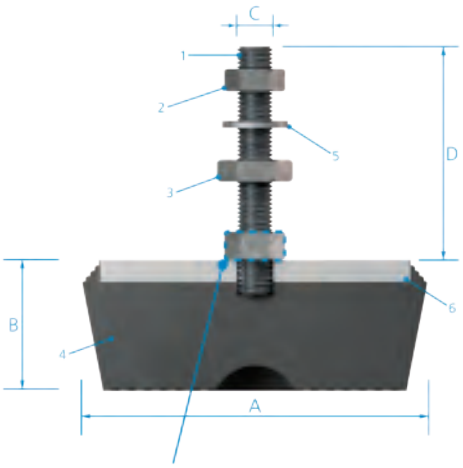
Alignment should therefore be checked 48 hours after the installation of the machine.

If this is not possible contact AMC's technical department and they will help you to ascertain the optimal alignment of your machine.

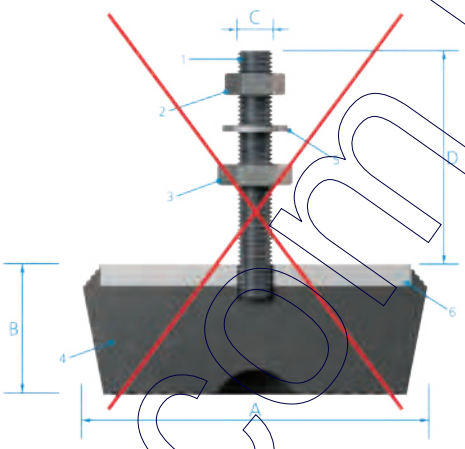
RECOMMENDATIONS FOR AMC MECANOCAUCHO® MACHINE MOUNTS WITHOUT ADJUSTABLE HOOD

On installing one of our AMC MECANOCAUCHO® machine mounts without adjustable hood, great care should be taken to ensure that the load of the machine does not rest on the screw, but on the hood.

This applies to our AMC MECANOCAUCHO® SV, SM and low SV series mounts.



This nut spreads the load on the bell and avoids tensioning the below welded insert.



RECOMMENDATIONS FOR TORQUE TIGHTENING FOR THE BRB, BSB, MD AND MARINE MOUNTS

Before installing, make sure that the support surfaces are sufficiently rigid flat and totally parallel. The main fixing screw should be tightened according to the torques recommended in the following chart:

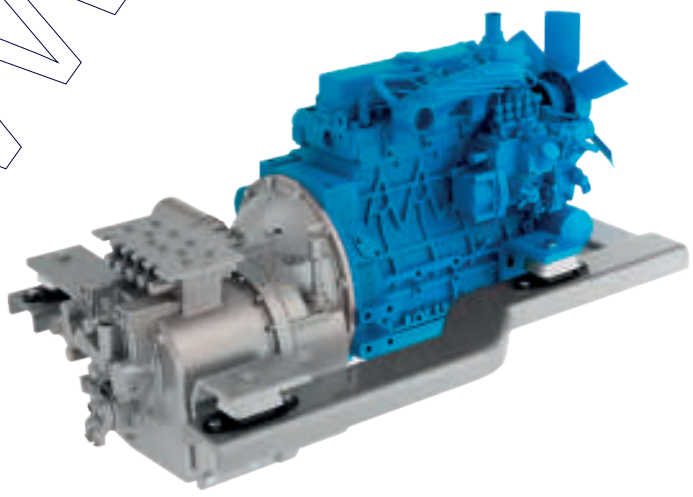
	M8	M10	M12	M16	M20	M24
Tightening torque Nm	16	32	55	125	190	285

RECOMMENDATIONS FOR THE INSTALLATION OF ANTIVIBRATION MOUNTS

The position of the antivibration mounts determines the vibration modes of the suspended ensemble. An even load distribution over all the mounts is advisable. One easy way of obtaining this is by installing the antivibration mounts equidistant from the CDG of the ensemble.

Mounts installed at the height of the crankshaft provide more stable suspensions and avoid over-movement of the suspended ensemble, particularly in mobile or moving applications.

The external connections to the suspended ensemble, such as cables, exhaust, hydraulic pipes, etc., must be elastic enough to prevent vibrations from being transmitted to the chassis through them.



VIBRATION ISOLATOR PRO BLUETOOTH ACCELEROMETER

DESCRIPTION

AMC MECANOCAUCHO® Bluetooth Accelerometer has been developed to work in conjunction with the AMC MECANOCAUCHO® free of cost app Vibration Isolator Pro for Android and iOS.

This equipment can provide an immediate vibratory analysis in the frequency domain, by connecting it to an Android or iOS mobile phone or tablet.

The application will guide the user along several steps in order to complete the analysis in an easy way.

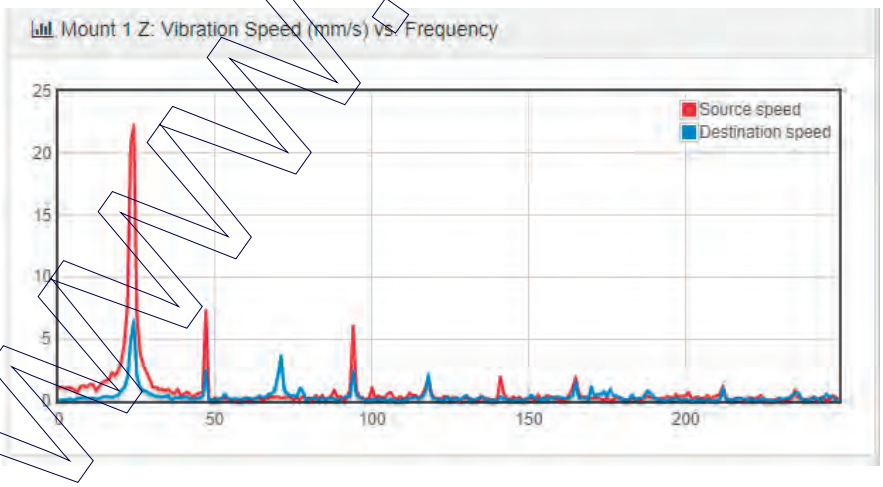
ADVANTAGES

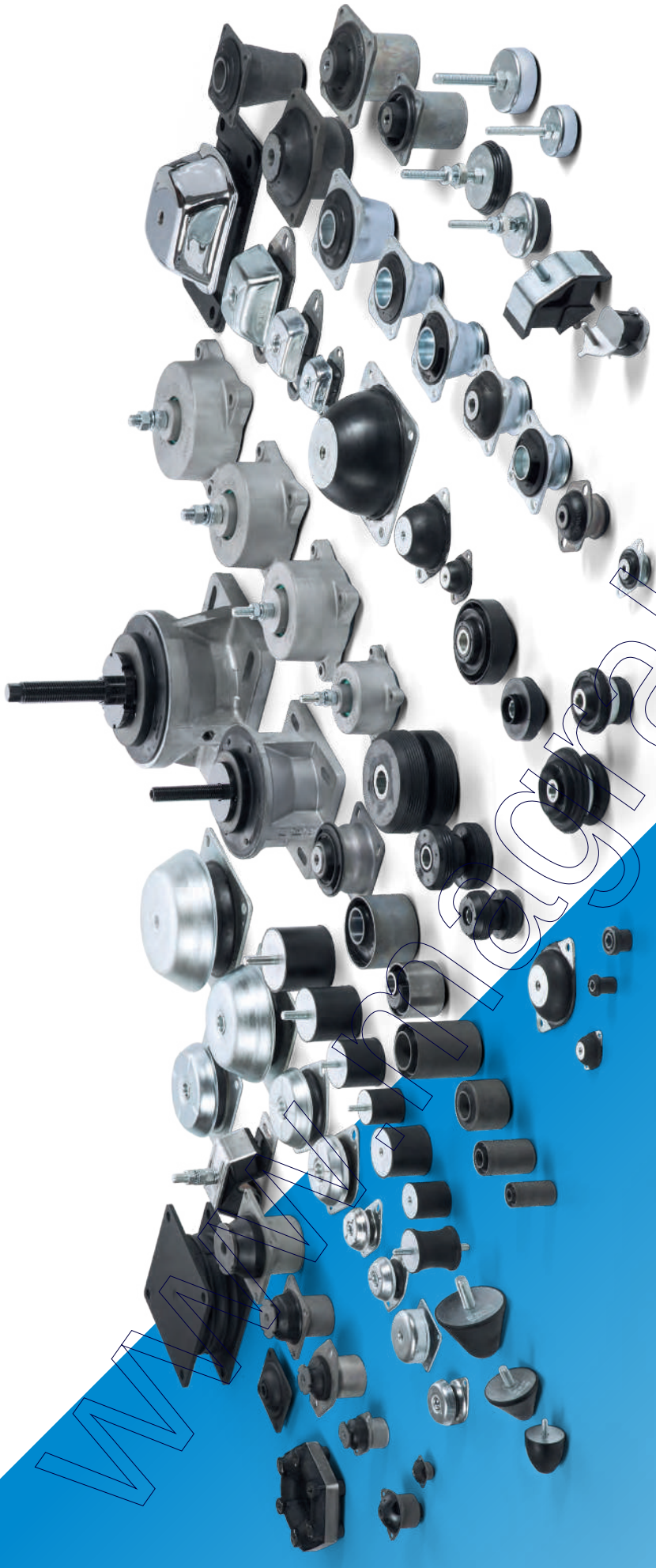
- Compact design
- 3 axis accelerometer
- DC to 500Hz useful bandwith
- Low noise
- iOS and Android compatible

QUICK GUIDE

SPECIFICATIONS

Acceleration Range	± 10g
Lower frequency limit	0Hz
Upper frequency limit	500Hz
Sensor technology	MEMS
Output Units	mm/s
Sampling rate	1024 kHz
Dimension	41 x 33 x 23 mm
Weigth	48 g
Housing material	Aluminium, plastic
Operating temperature range	-20 to 60ºC
Residual Noise density	80 µg/√Hz rms
Sensitivity	19 µg/LSB
ADC resolution	20 Bits
Cross Axis sensitivity	1,50%
Maximum supported acc.	500g
Wireless protocol	Bluetooth LE 4.2





The following graph shows the expected vibration isolation performance when two key factors are known:

FREQUENCY OF EXCITATION

This is the problematic frequency which is required to be isolated. For example the vibration frequency produced from a diesel engine.

NATURAL FREQUENCY

This is the frequency at which a system will naturally oscillate at if subjected to an external force.

This frequency is dependant on the mass of the suspended element and the stiffness of the mounting points. If in doubt an AMC engineer is available to assist with calculations to determine the natural frequency of your installation.