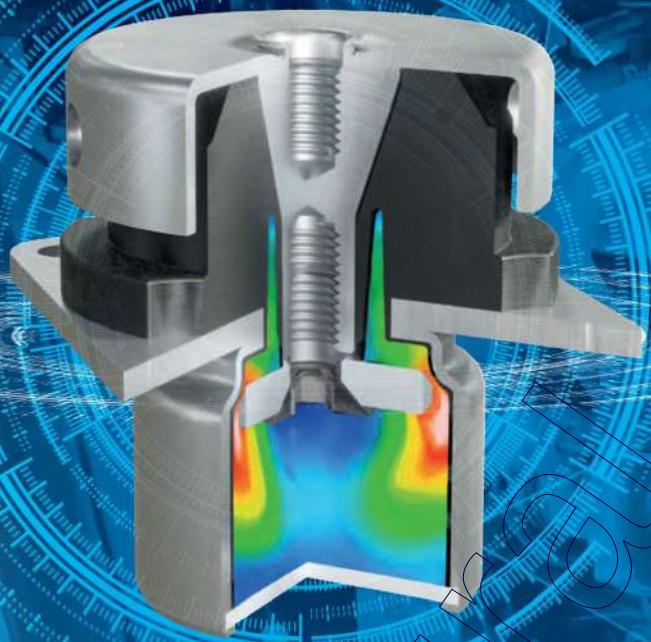
AMC
MECANOCAUCHO



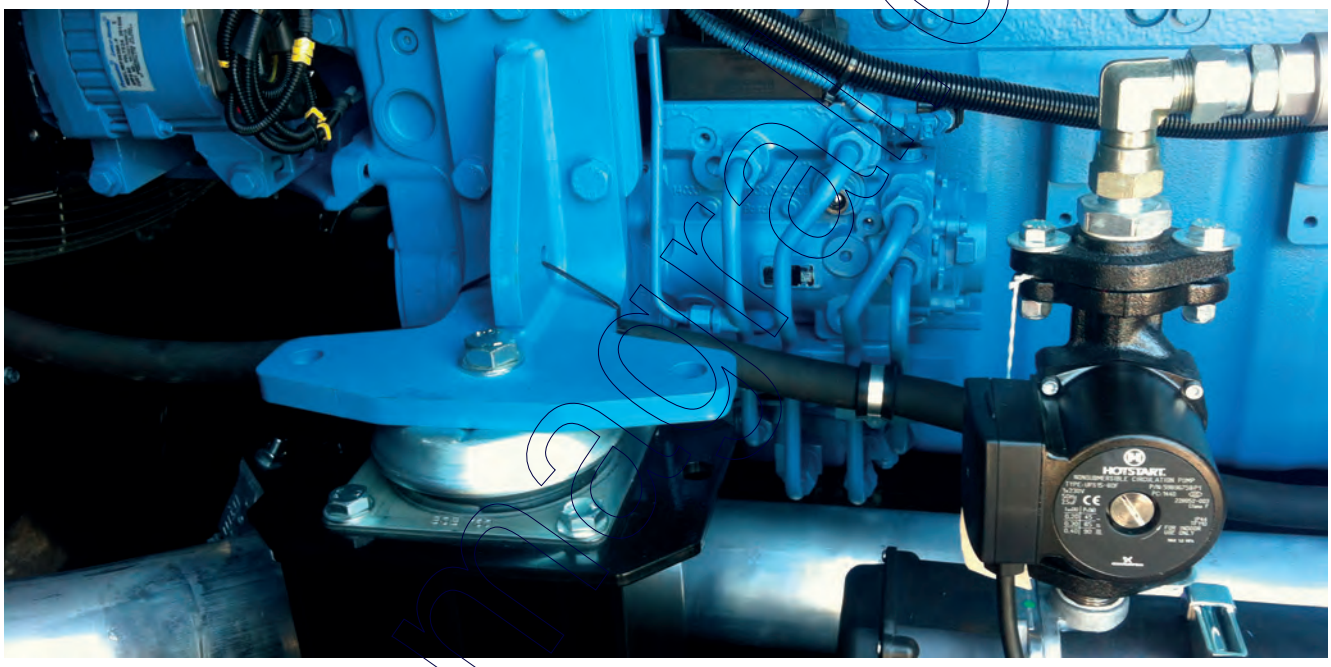
RUBBER METAL

Anti vibration mounts
AMC MECANOCAUCHO®

APPLICATIONS

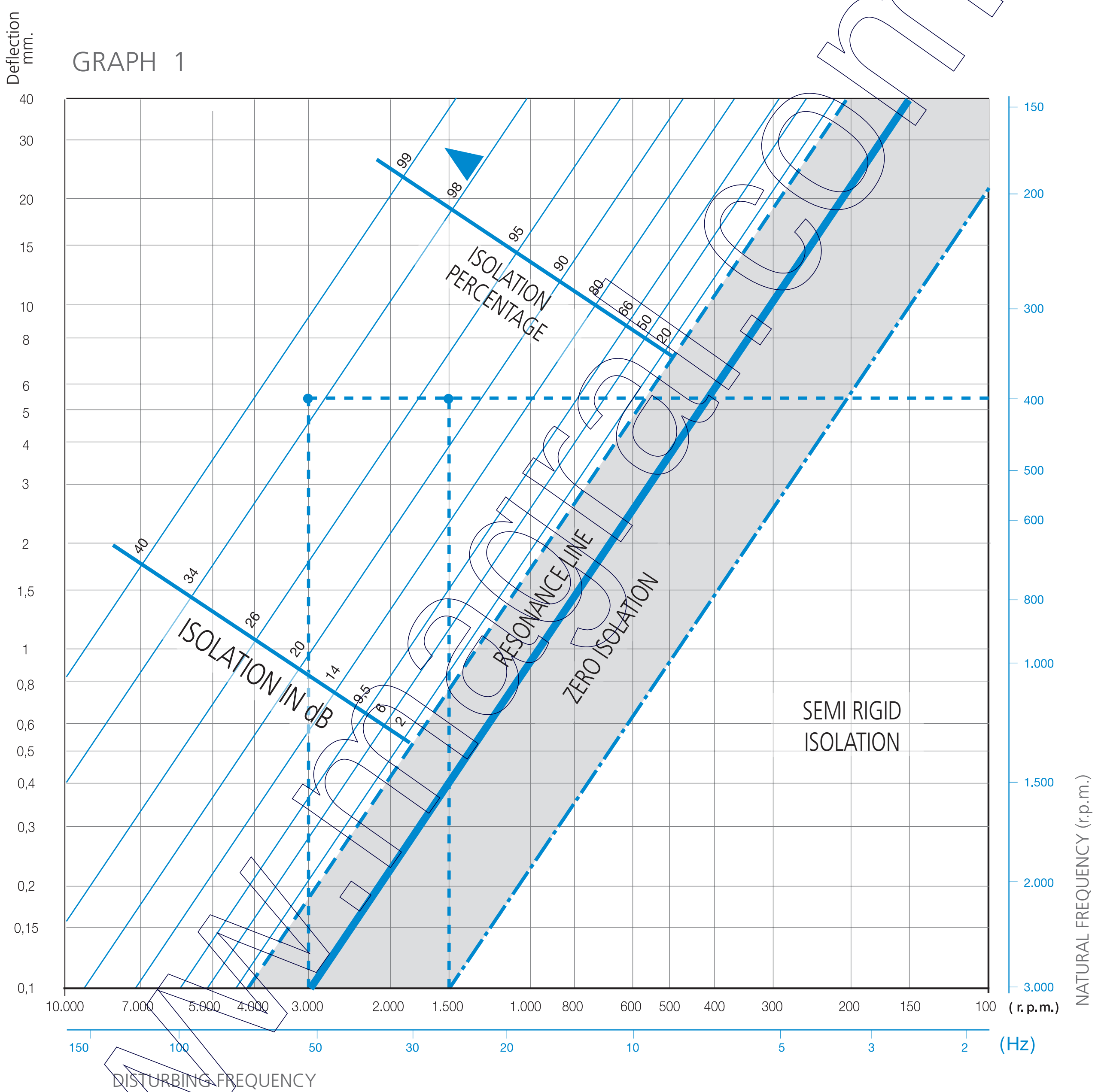
Our products are used in sectors such as:

- 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



* AMC S.A. reserves the right to modify the design and manufacture of the materials presented in this catalogue without prior notice.

VIBRATION ISOLATION EFFICIENCY GRAPH



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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

DRD

DESCRIPTION

The AMC MECANOCAUCHO® type DRD mounts have a low axial and radial stiffness rate. Their design makes them ideal for those machines that produce vibrations in the 3 directions. The architecture of these mounts is similar to the DSD, but the rubber section is greater, this feature makes them have a lower stiffness rates than the DSD mounts. These mounts are particularly interesting for those applications where an extra isolation is needed.

OPERATION AND ASSEMBLY

The design of the mount allows an easy installation. The top metal part has an inside thread for securing to the machine, the baseplate has 2/4 holes that allow an easy fixation to the frame. Oil anti-drip hoods can be supplied on demand.

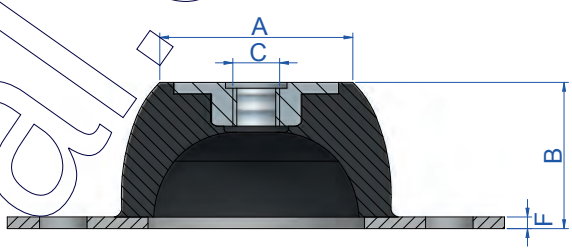
The DRD mounts by MECANOCAUCHO® have the following characteristics.

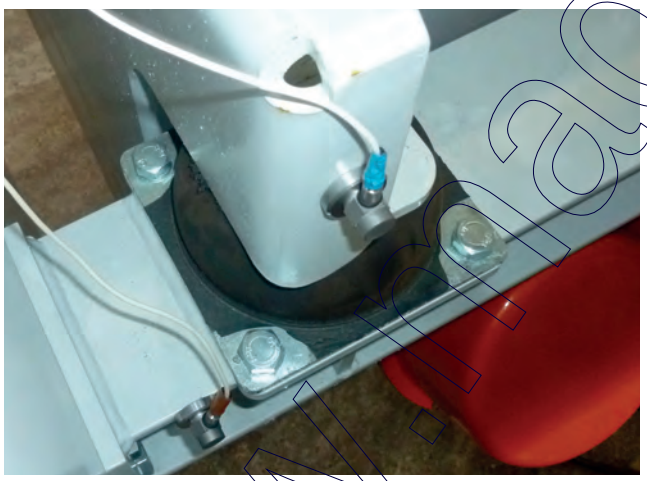
- The metal parts are protected from corrosion by an electrolytic coating for outdoor work. RoHs compliant.
- We engrave the rubber hardness on the metal parts.

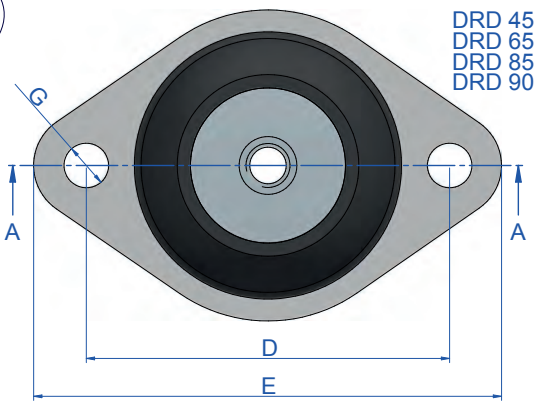
APPLICATIONS

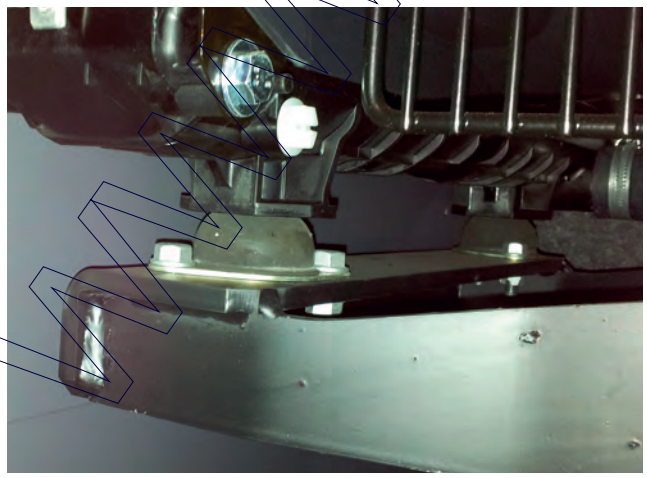
The DRD mounts are ideal for light machines at medium or low excitation frequencies.

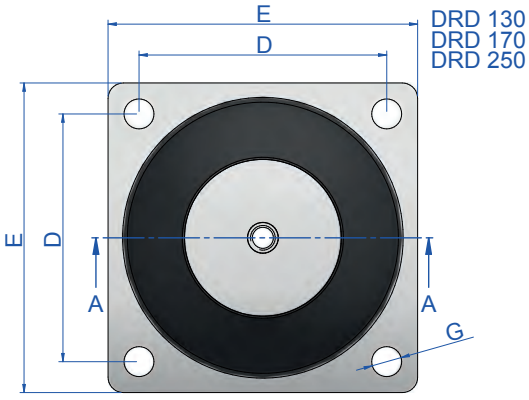
- Compressors.
- Air-conditioners.
- Ventilators.
- Vibrating Tables.





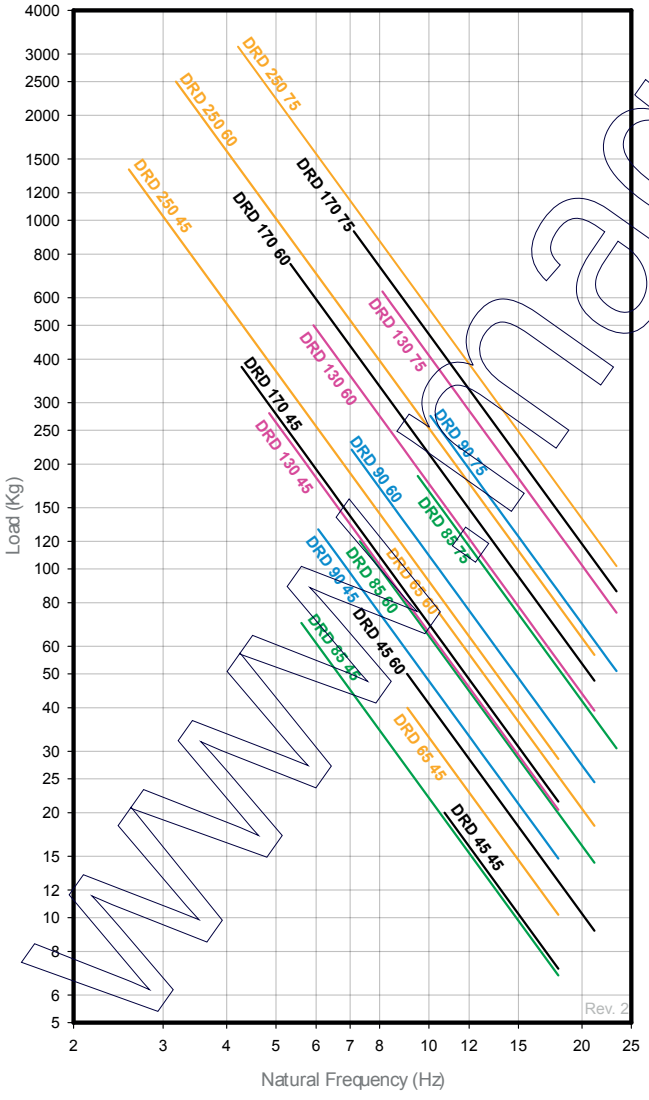




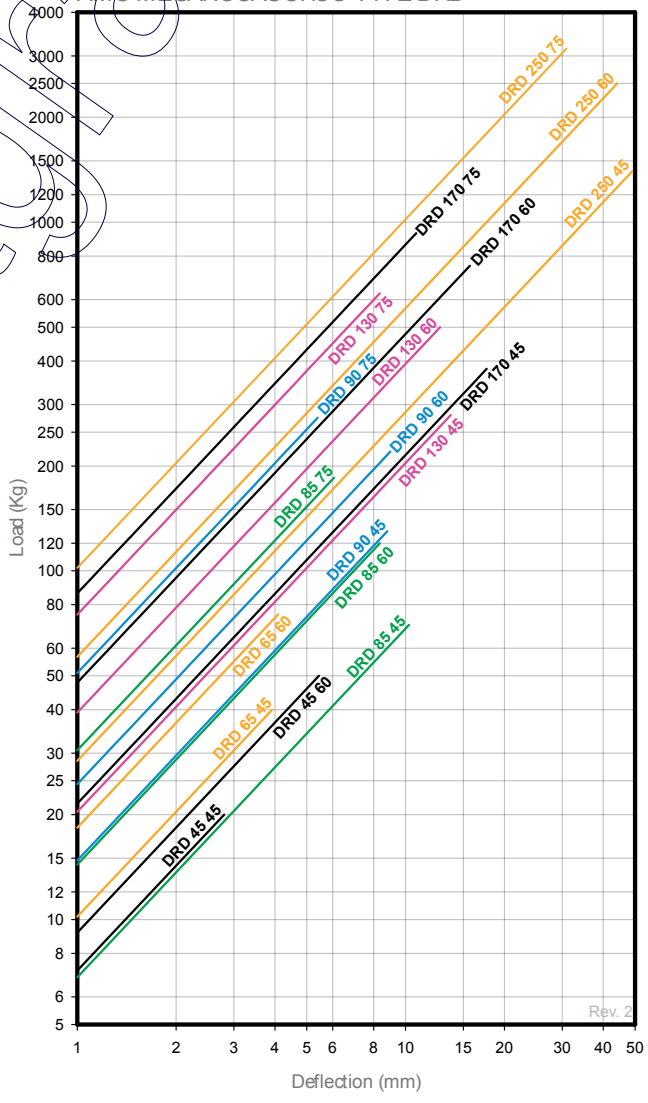


Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (gr.)	Code	Load (kg)	Shore
DRD 45	33	25	M-8	66	85	2	8	70	**175081**	20	45 Sh
									175083	50	60 Sh
DRD 65	52	35	M-10	92	114	2,5	10,5	170	**175001**	40	45 Sh
									175002	75	60 Sh
DRD 85	52	40	M-10	110	136	3	11,5	303	**175003**	75	45 Sh
									175004	120	60 Sh
									175013	185	75 Sh
DRD 90	57,5	45	M-10	125	150	3	12,5	430	**175021**	130	45 Sh
									175022	220	60 Sh
									175023	275	75 Sh
DRD 130	78	63	M-12	120	150	5	14,5	1080	**175031**	280	45 Sh
									175032	500	60 Sh
									175033	625	75 Sh
DRD 170	100	84	M-16	160	200	4	14,5	2300	**175036**	380	45 Sh
									175037	750	60 Sh
									175038	930	75 Sh
DRD 250	187	158	M-24	250	310	6	18,5	10400	**175041**	1400	45 Sh
									175042	2500	60 Sh
									175044	3150	75 Sh

NATURAL FREQUENCY
AMC MECANOCAUCHO® TYPE DRD



LOAD DEFLECTION GRAPH
AMC MECANOCAUCHO® TYPE DRD



DSD

DESCRIPTION

AMC MECANOCAUCHO® DSD mounts design provides excellent radial and axial flexibility making them most suitable for the suspension of machines where isolation of both vertical and horizontal vibration components occur.

DSD mounts comprise of two flat metal parts. Top metal part is circular with either a tapped central hole or interior welded nut for attachment to the machine frames. Lower metal part has an oval contour with two machined holes, one at each end, to securely attach the mountings to the support structure for the machine.

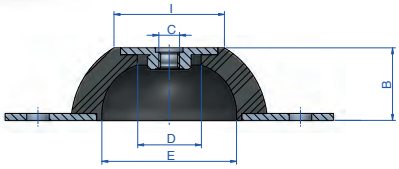
TECHNICAL CHARACTERISTICS

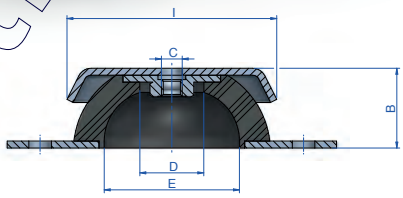
DSD mountings comparable stiffness vertically and horizontal making them very effective against random vibrations in either plane.

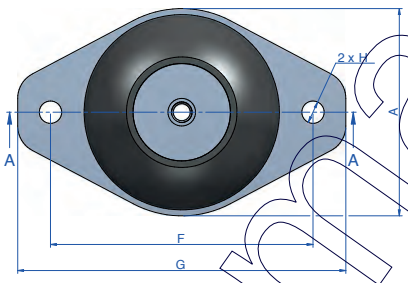
APPLICATIONS

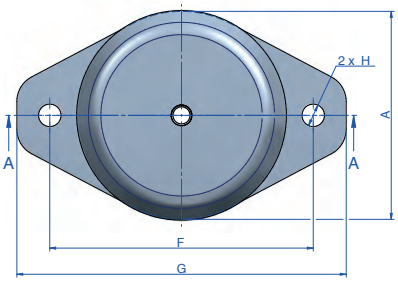
DSD mountings are particularly suitable for applications with low to medium dynamic amplitudes which enables the mountings stiffness rates to provide effective isolation .

Suitable for HVAC, Ventilators, rotating pumps, torque or frequency converters, electrical engines, etc.





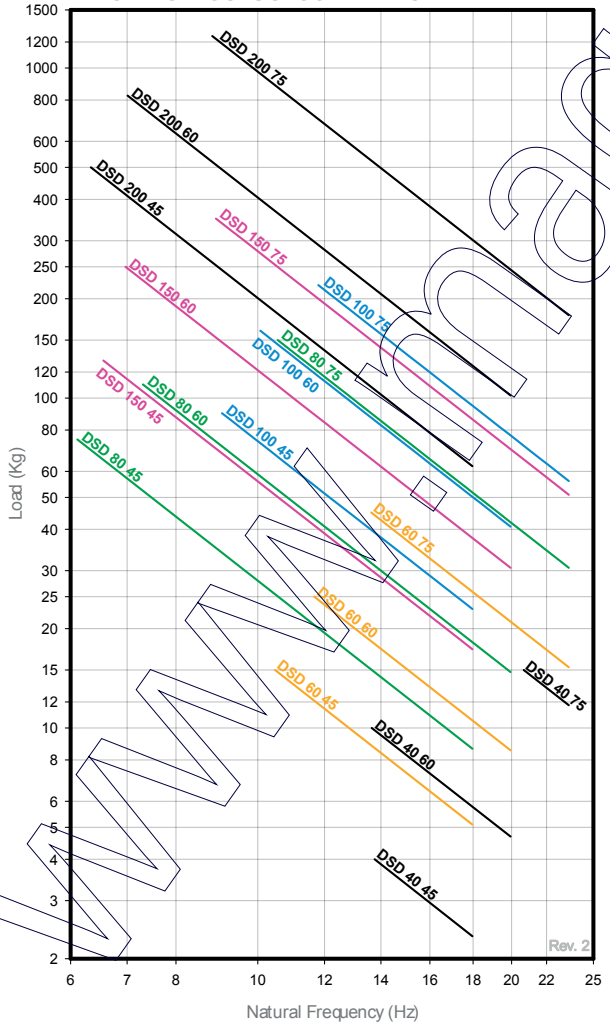




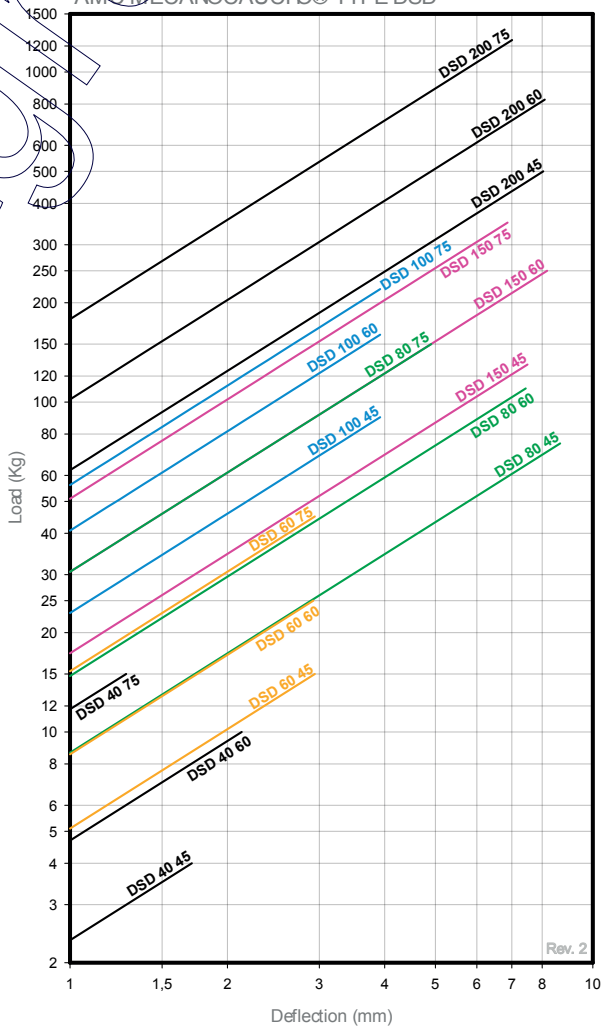
Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Weight (gr.)	Code	Load (kg)	Shore
DSD 40 + Bell	43	19	M-6	19	29	52	64	6,25	40	48	134028	4	45 Sh
											134029	10	60 Sh
											134030	15	75 Sh
DSD 60 + Bell	60	23	M-6	14	39	76	95	6,5	60,5	128	134031	15	45 Sh
											134032	25	60 Sh
											134033	45	75 Sh
DSD 80 + Bell	86	27	M-8	25	65	100	120	8,5	85	232	134034	75	45 Sh
											134035	110	60 Sh
											134036	150	75 Sh
DSD 100 + Bell	100	28	M-10	22	67	124	149	10,5	103,5	465	134037	90	45 Sh
											134038	160	60 Sh
											134039	220	75 Sh
DSD 150 + Bell	150	37	M-14	34	114	182	214	12	155	1110	134040	130	45 Sh
											134041	250	60 Sh
											134042	350	75 Sh
DSD 200 + Bell	200	44	M-18	35	140	240	280	15	208	2736	134043	500	45 Sh
											134044	825	60 Sh
											134045	1250	75 Sh

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Weight (gr.)	Code	Load (kg)	Shore
DSD 40	43	17	M-6	19	29	52	64	6,25	24,5	28	134001	4	45 Sh
											134002	10	60 Sh
											134003	15	75 Sh
DSD 60	60	21	M-6	14	39	76	95	6,5	32	73	134004	15	45 Sh
											134005	25	60 Sh
											134006	45	75 Sh
DSD 80	86	25	M-8	25	65	100	120	8,5	51	130	134007	75	45 Sh
											134008	110	60 Sh
											134009	150	75 Sh
DSD 100	100	25	M-10	22	67	124	149	10,5	54	262	134010	90	45 Sh
											134011	160	60 Sh
											134012	220	75 Sh
DSD 150	150	34	M-14	34	114	182	214	12	76	664	134013	130	45 Sh
											134014	250	60 Sh
											134015	350	75 Sh
DSD 200	200	40	M-18	35	140	240	280	15	128	1615	134016	500	45 Sh
											134017	825	60 Sh
											134018	1250	75 Sh

NATURAL FREQUENCY
AMC MECANOCAUCHO® TYPE DSD



LOAD DEFLECTION GRAPH
AMC MECANOCAUCHO® TYPE DSD



ATP

DESCRIPTION

AMC MECANOCAUCHO® ATP type mounts have been designed to provide effective vibration isolation of medium to high frequency applications in a variety of industrial machinery, gensets, motor pumps, motor compressors, hydraulic units, etc.

The top metal part is cup shaped to protect the rubber section from contamination by oil, grease, petrol, diesel, dust, etc.

TECHNICAL CHARACTERISTICS

The compound used is based on a standard natural rubber specifically designed to have good ageing properties.

Load capacities shown in catalogue are the maximum Static values with the capability of withstanding occasional extreme dynamic overloads .

ATP mounts have stiffness values 4 times greater in the radial plane than the axial plane, providing effective resistance to transient lateral shock loads.

APPLICATIONS

Suspension systems where it is deemed necessary to control any Pitching or Rolling movement which could strain external connections. • Medium and high frequency motor compressor units. •Gen sets. • Hydraulic Units. • Marine auxiliary units. • Ventilators, etc.

Fig. 1

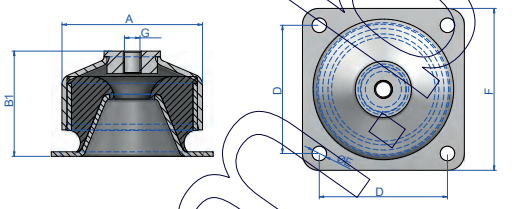
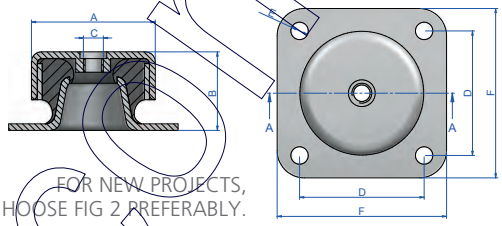


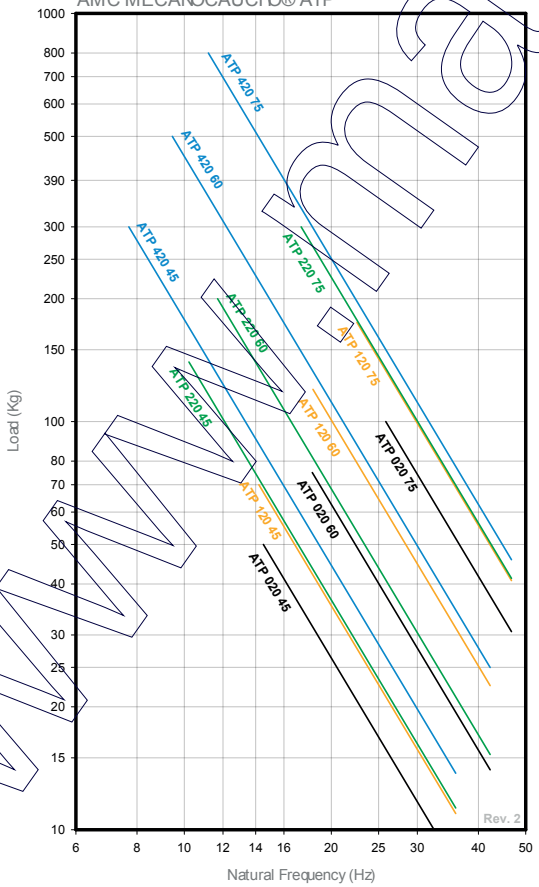
Fig. 2



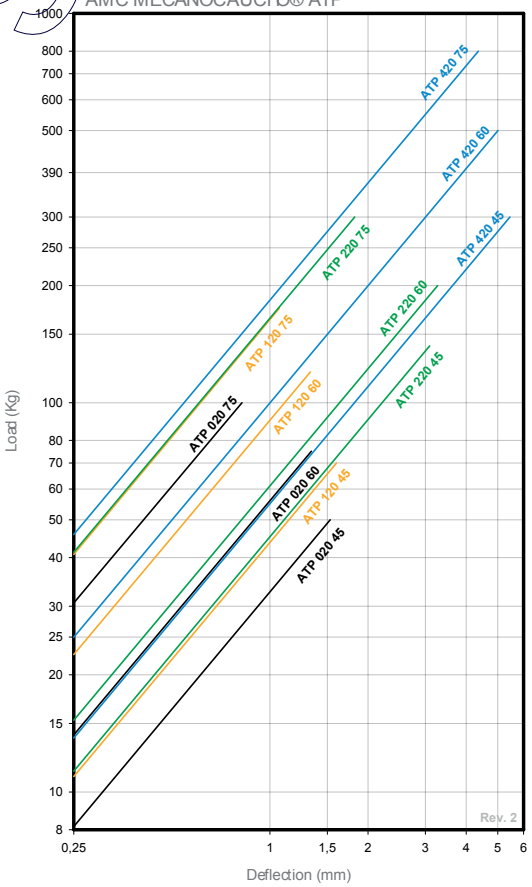
FOR NEW PROJECTS,
CHOOSE FIG 2 PREFERABLY.

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (gr.)	B1	Code	Load (kg)	Shore	Fig.
ATP 020	49,7	31,5	M-8	50	7	68	16	143	-	**133101**	50	45 Sh	2
										133102	75	60 Sh	2
										133103	100	75 Sh	2
ATP 120	73,6	43	M-10	72,2	9,2	90	32	379	53	**133104**	70	45 Sh	2
										133105	120	60 Sh	2
										133106	175	75 Sh	2
										133151	70	45 Sh	1
										133152	120	60 Sh	1
										133153	175	75 Sh	1
ATP 220	91	53	M-12	90	11	114,2	36	618	63	**133107**	140	45 Sh	2
										133108	200	60 Sh	2
										133109	300	75 Sh	2
										133154	140	45 Sh	1
										133155	200	60 Sh	1
										133156	300	75 Sh	1
ATP 420	124,5	75	M-16	114	13	144	60	1510	94	**133110**	300	45 Sh	2
										133111	500	60 Sh	2
										133112	800	75 Sh	2
										133157	300	45 Sh	1
										133158	500	60 Sh	1
										133159	800	75 Sh	1

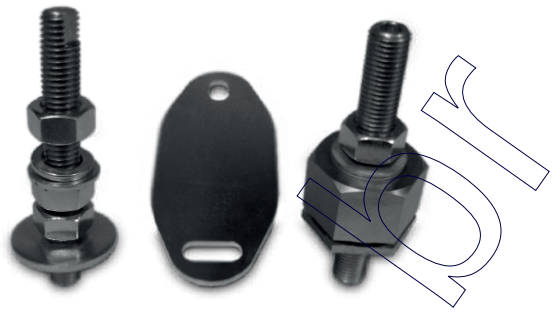
NATURAL FREQUENCY
AMC MECANOCAUCHO® ATP



LOAD DEFLECTION GRAPH
AMC MECANOCAUCHO® ATP



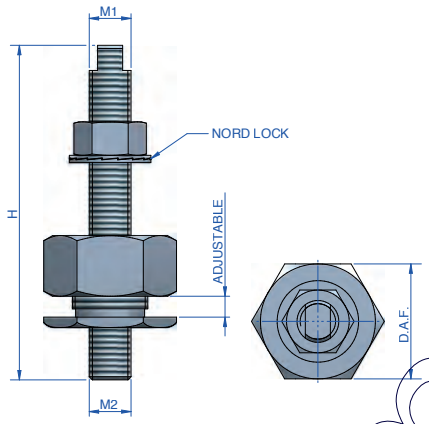
HEIGHT ADJUSTING SYSTEMS



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

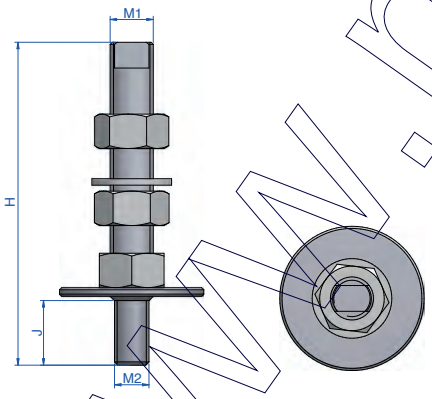
It is recommendable to settle the mountings at least 48hours before the alignment of the engine installation, especially for close coupling tolerances.

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



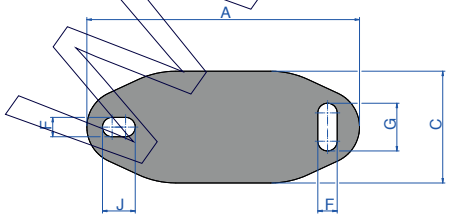
Hi-Sec

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

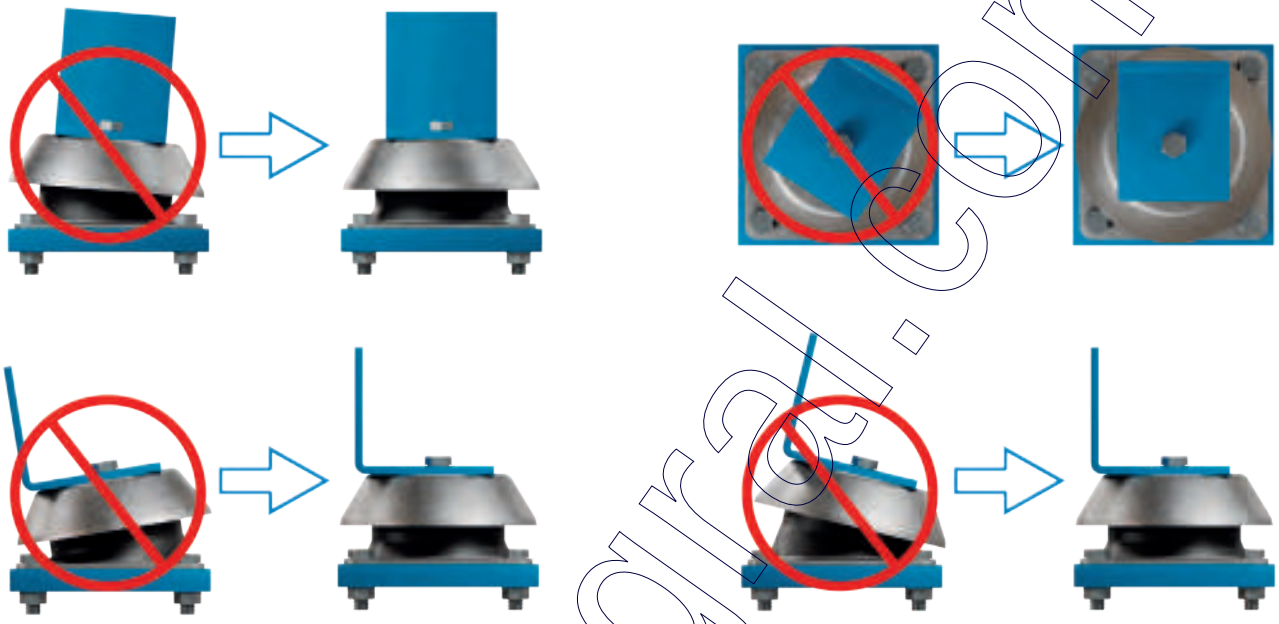
Type	Code	A (mm)	C (mm)	D (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	Weight (kg)
SMALL	**136301**	120	60	100	14	11	3	14	11	-
MEDIUM	**136302**	183	75	140	30	13	4	13	22	-
LARGE	**136303**	228	112	182	34	18	5	18	26	-

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.

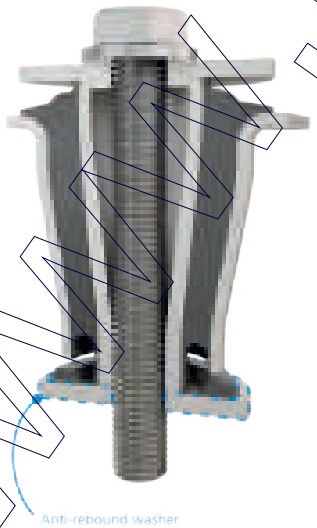


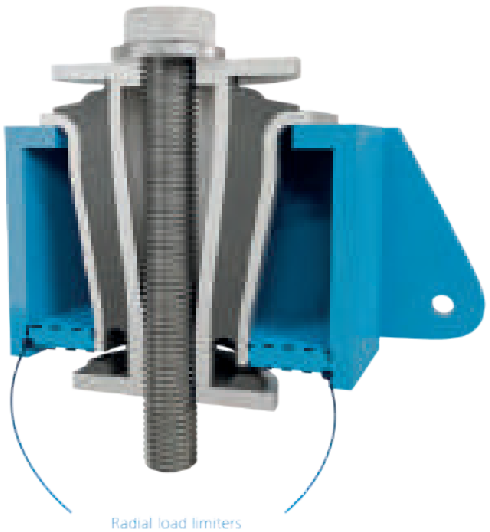
RECOMMENDATIONS FOR THE CONICAL MOUNTS

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.

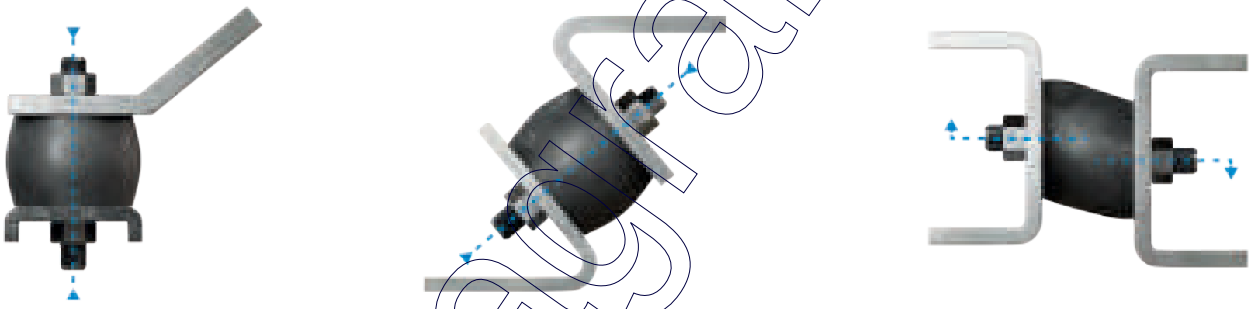
Care should be taken to make sure that the protective hood has the same or a greater diameter than that of the diameter of the rubber element.

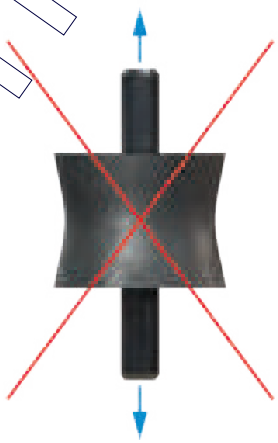
We have a standard range of Mecanocaucho® protection hoods. Check them out.

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.

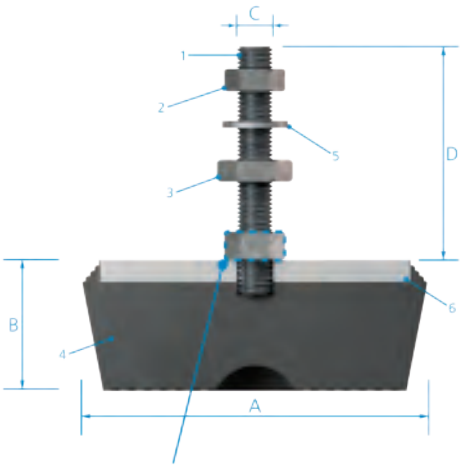
Alignment should therefore be checked 48 hours after the installation of the machine.

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

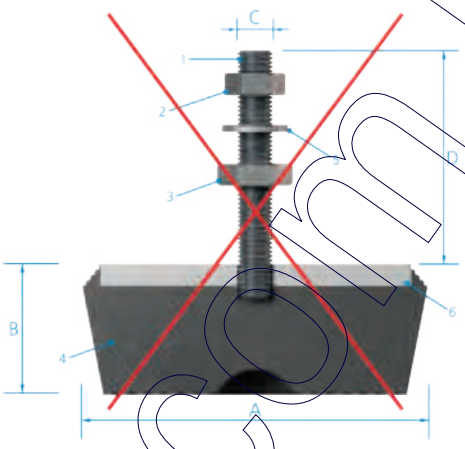
RECOMMENDATIONS FOR AMC MECANOCAUCHO® MACHINE MOUNTS WITHOUT ADJUSTABLE HOOD

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:

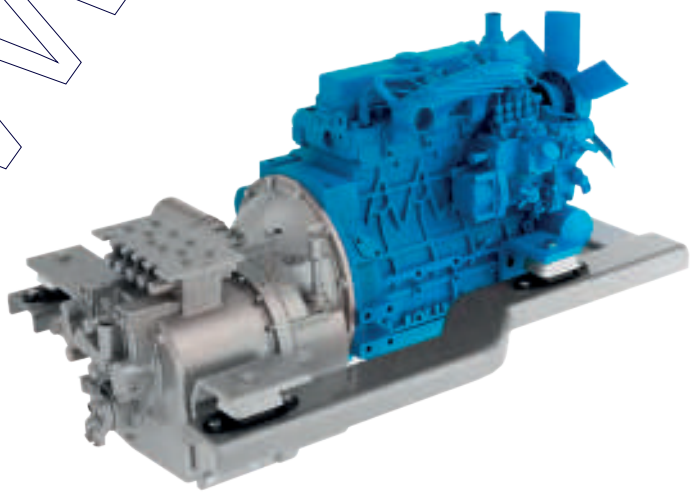
	M8	M10	M12	M16	M20	M24
Tightening torque Nm	16	32	55	125	190	285

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.

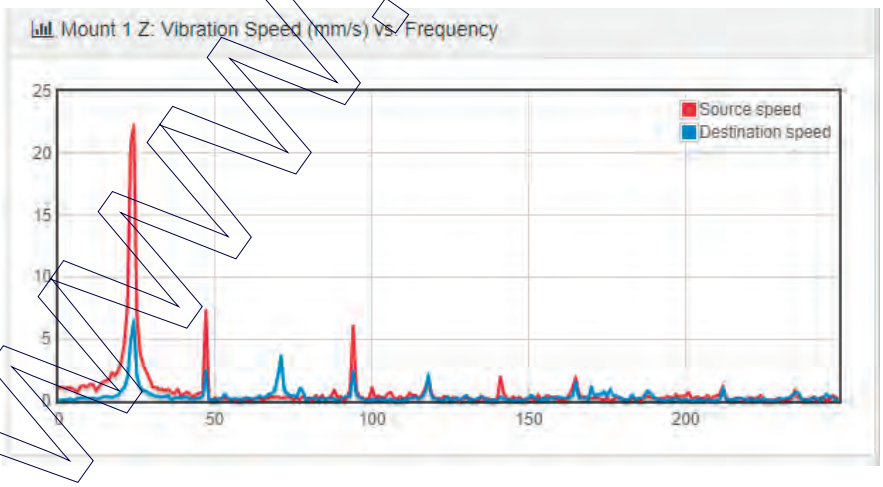
ADVANTAGES

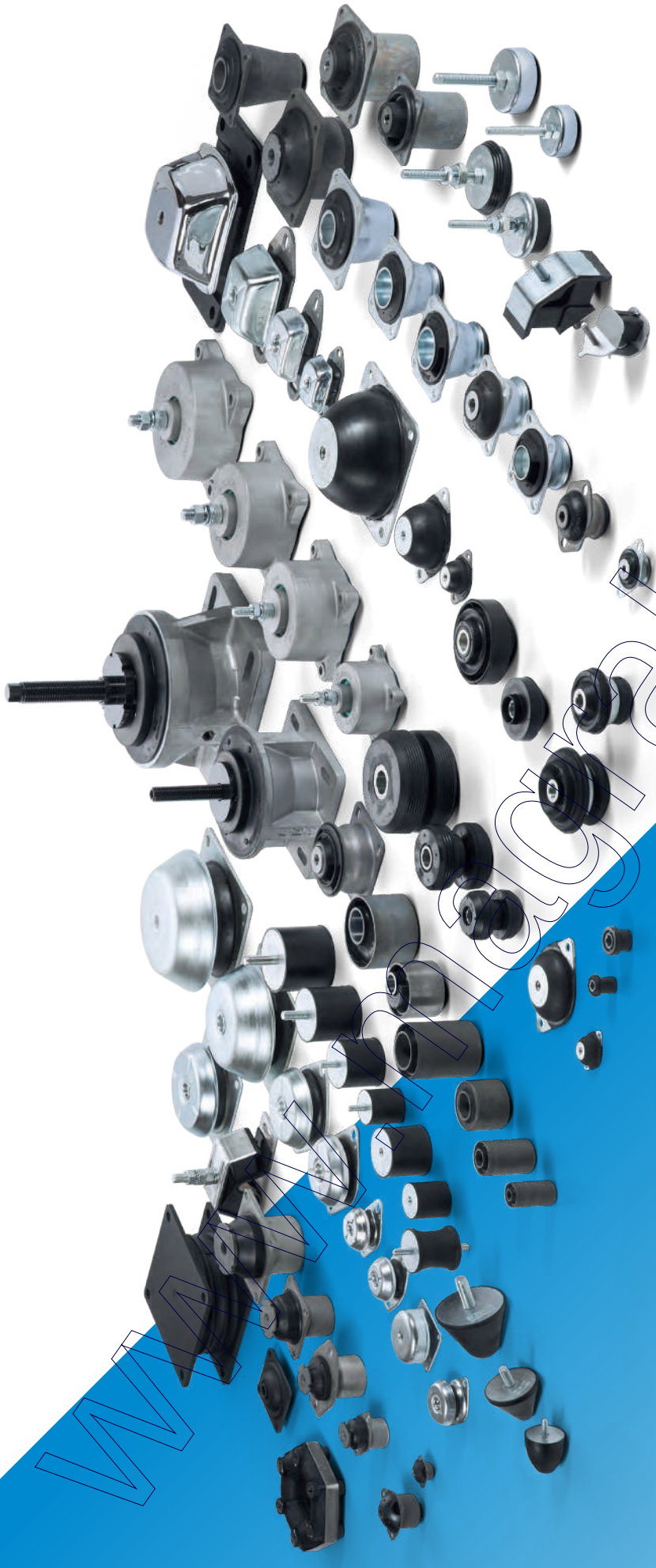
- Compact design
- 3 axis accelerometer
- DC to 500Hz useful bandwith
- Low noise
- iOS and Android compatible

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.