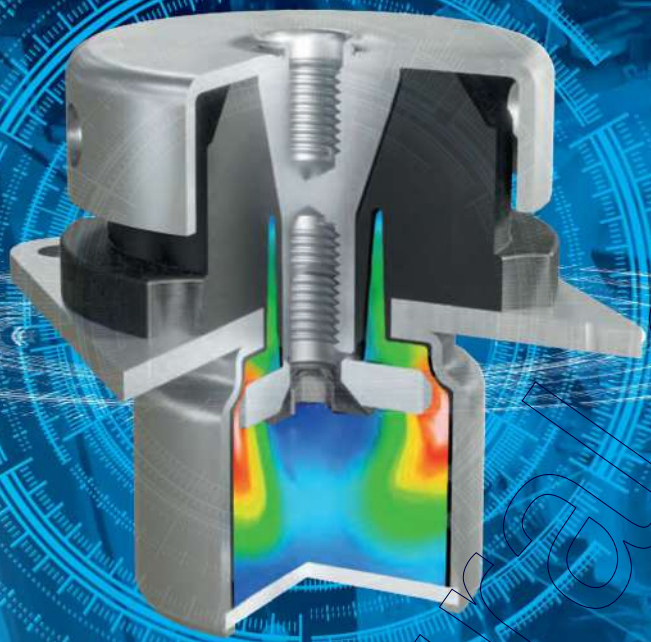
AMC
MECANOCAUCHO



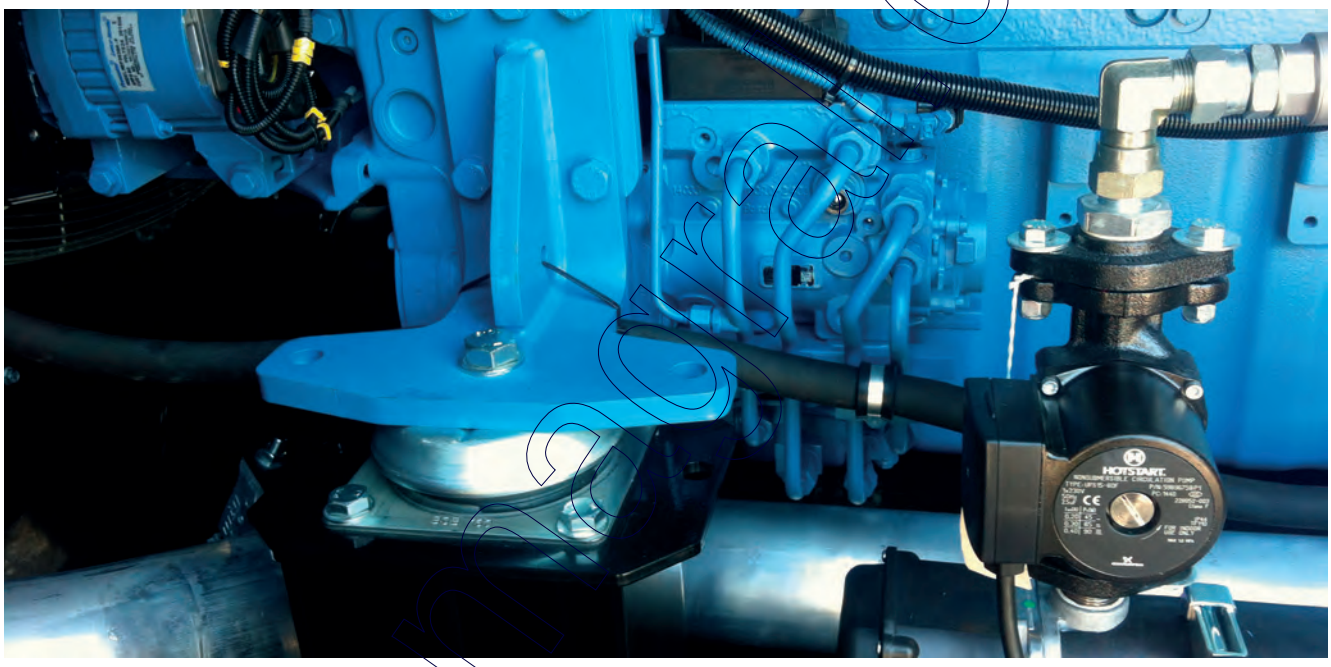
RUBBER METAL

Anti vibration mounts
AMC MECANOCAUCHO®

APPLICATIONS

Our products are used in sectors such as:

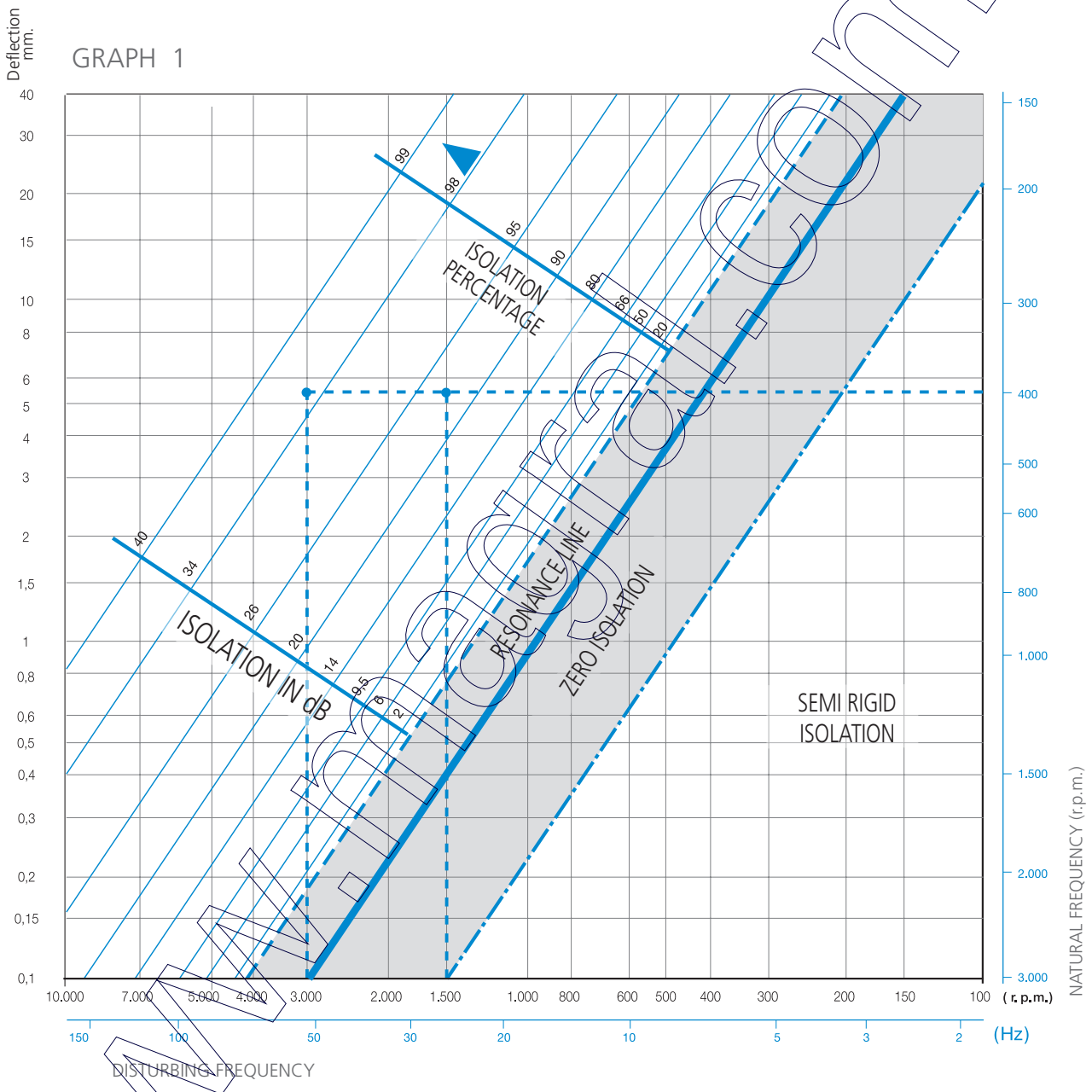
- Generation of electrical energy
- Air compression
- Pumping of liquids
- Industrial vehicles
- Machine Tools
- Marine propulsion and auxiliary equipment
- Agricultural and construction equipment machinery
- Acoustic isolation of premises and sites
- Vibrating screens, Hoppers, Silos, Feeder screens



* 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

GRAPH 1



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

ECCENTRIC BUSHINGS

DESCRIPTION

On the eccentric bushings the center points of the inner and outer cylinders are not the same. As a result it is more flexible in the direction of the main load and it keeps the same control in the other direction.

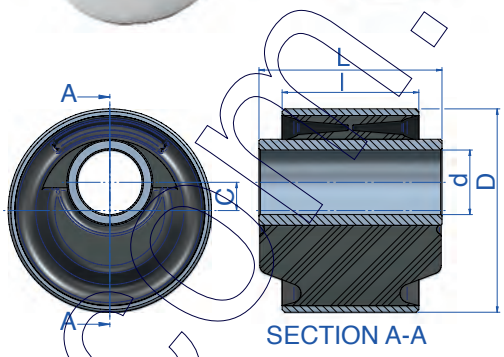
TECHNICAL CHARACTERISTICS

- Optimal vibration damping and isolation.
- Fit to use for robust and safe constructions.
- Simple installation and application.

APPLICATION

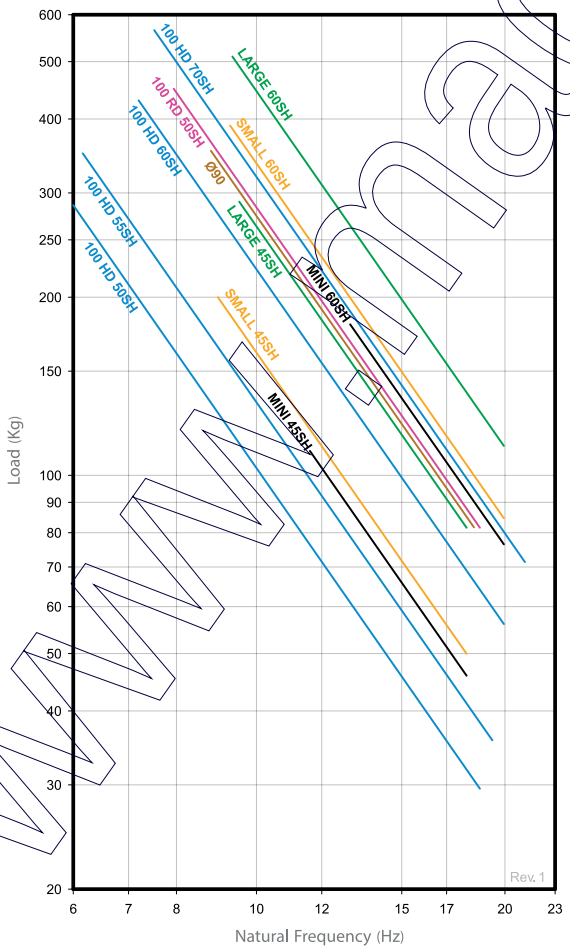
The AMC MECANOCAUCHO® eccentric bushing is best suited to the following situations and applications:

- Tilting cab suspension.
- Suspension arms.

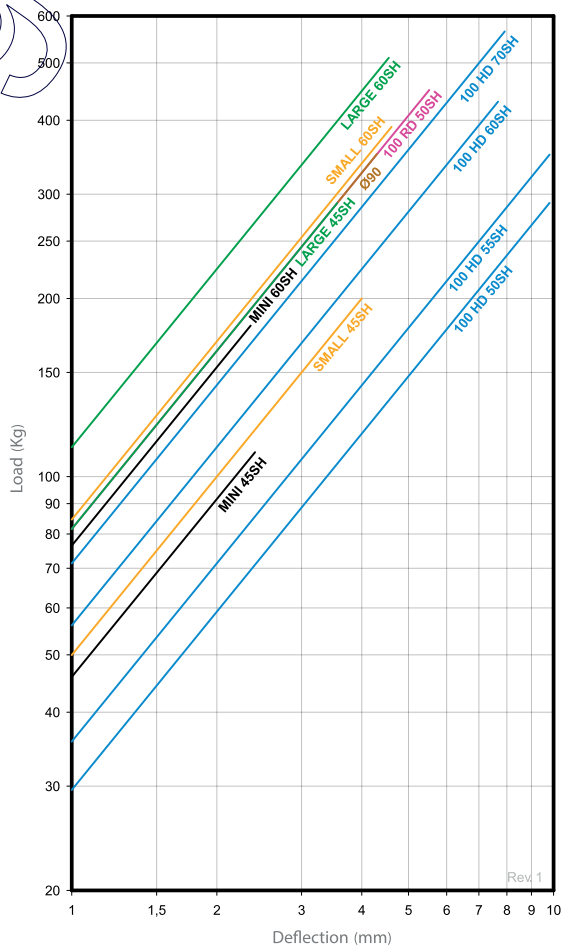


Type	d (mm)	C (mm)	D (mm)	l (mm)	L (mm)	Code	Shore	Max. Load (kg)
MINI	16	7,1	47,6	50,8	63,5	**154161**	45	110
						154162	60	180
SMALL	24	10,5	75,3	50,8	68	**154159**	45	200
						154158	60	390
LARGE	43,7	9,5	101,6	63,5	72,4	**154154**	45	290
						154155	60	510
Ø90			-			**154136**	65	350
100 HD			-			**154181**	50	225
						154182	55	290
						154183	66	350
100 RD			-			**154175**	50	450

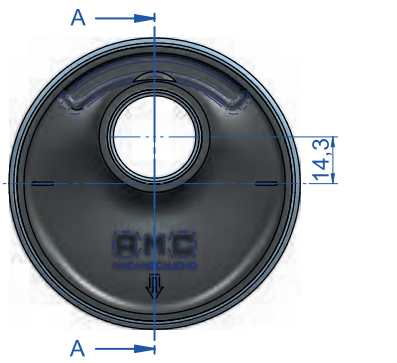
NATURAL FREQUENCY GRAPH
AMC MECANOCAUCHO® ECCENTRIC BUSHING

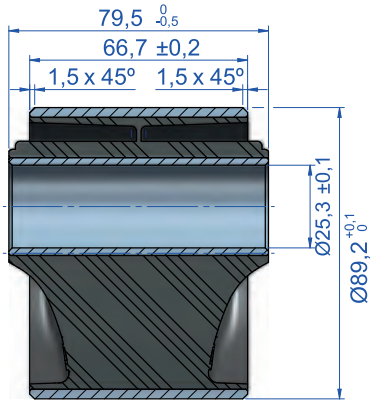


LOAD DEFLECTION GRAPH
AMC MECANOCAUCHO® ECCENTRIC BUSHING

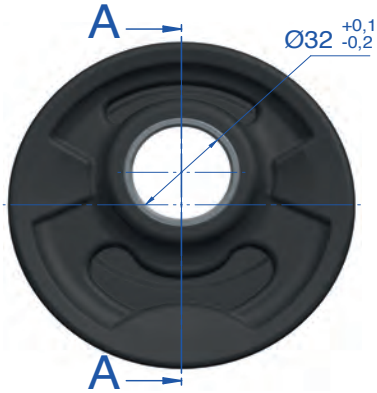


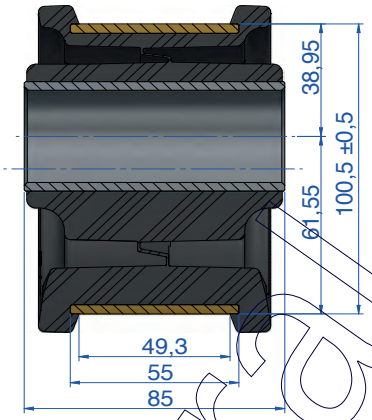
Ø90	100 HD	100 RD



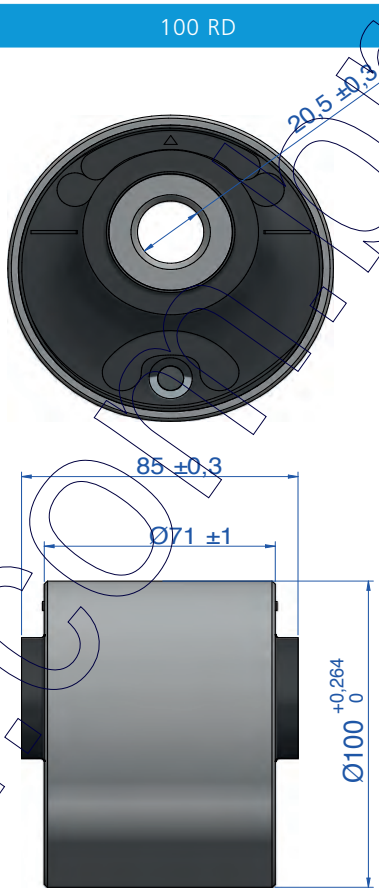


SECTION A-A

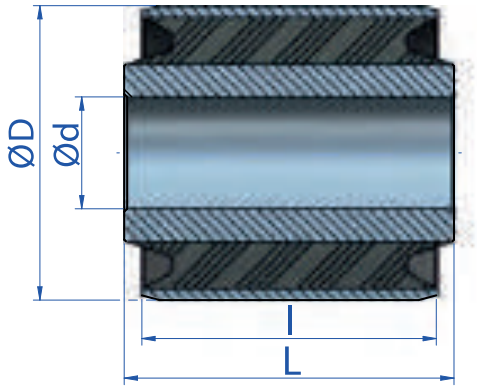




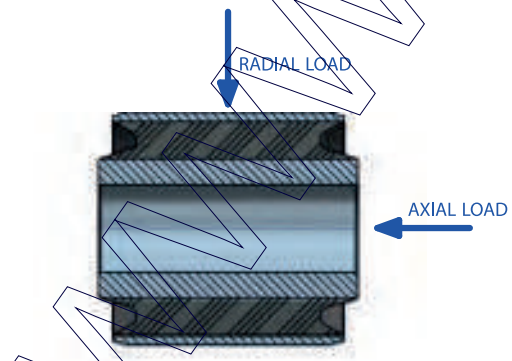
A-A



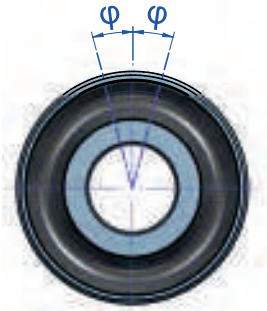
AMC MECANOCAUCHO® BUSHINGS



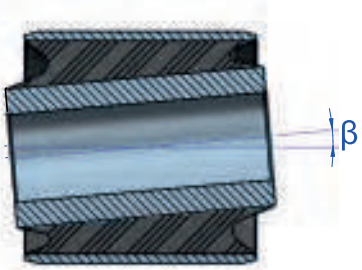
Type	d (mm)	D (mm)	l (mm)	L (mm)	Weight (kg)	Torsion Mt max (Nm)	Angle Torsion φ max (°)	Conical Angle max β (°)	Axial load Fa max (N)	Axial load Sa max (mm)	Radial load Fr max (N)	Radial load Sr max (mm)	Code
BUSHINGS	10	22	25	30	0,034	7	10	3	500	0,9	1875	0,25	**154005**
	10	22	30	32	0,038	9	10	2	600	0,9	2250	0,25	**154006**
	10	25	20	25	0,60	8	10	3	250	1	2000	1	**154168**
	12	30	28	34	0,064	10	15	2	580	1,7	1750	0,55	**154103**
	12	32	55	59	0,131	19	16	2	1200	1,7	7000	0,65	**154077**
	12	40	40	60	0,198	16	20	3	450	1,8	1200	1	**154104**
	12.20	46.4	52	60	0.264	33	25	3	1100	2.6	3000	0.85	**154086**
	14	27	40	45	0,08	20	10	2	935	1,3	4400	0,35	**154107**
	16	32	22	30	0,073	14	10	3	750	1,3	1800	0,35	**154080**
	18	36	48,5	58,5	0,161	35	10	2	1420	1,6	7350	0,45	**154021**
	20	45	35	40	0,152	45	15	2	1600	4,8	5800	1,4	**154133**
	20	45	64	70	0,285	55	15	2	2200	2,5	10000	0,85	**154073**
	24	45	44	55	0,265	55	11	3	1840	1,8	8650	0,6	**154082**
	25	50	50	56	0,261	34	6,6	2	2900	3	10000	1	**154040**
	25	50	80	85	-	49	14	2	7500	7,8	18000	1,7	**154044**
	32	66	47	55	0,517	77	15	3	2450	3,9	8400	1,3	**154079**
	40	70	55	65	0,616	138	12	3	3320	3,6	20500	1,2	**154043**
	45	75	90	100	0,956	320	10	2	6300	3,1	35000	0,9	**154075**
	45	80	45	45	0,522	80	11	4	1500	3,3	7800	2,3	**154091**
	50	80	100	110	1,4	450	9	1	7800	2,8	55000	0,85	**154061**



LOADS



TORSIONAL ANGLE

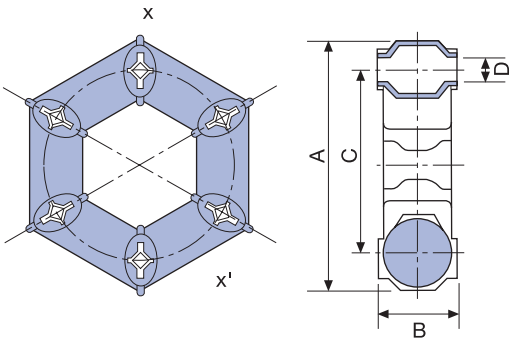


CONICAL ANGLE

AMC MECANOCAUCHO® ELASTIC COUPLINGS

AMC MECANOCAUCHO ELASTIC COUPLINGS FLECTOR

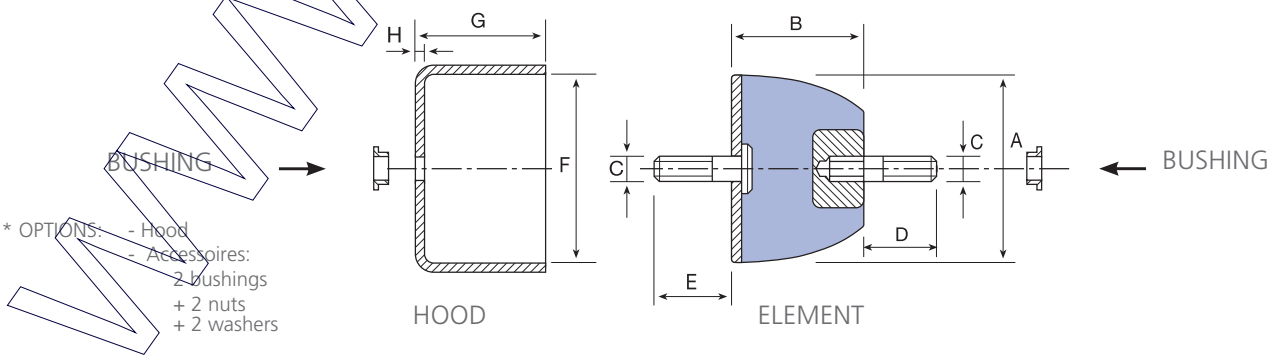
X-X´ SECTION



Type	A (mm)	B (mm)	D (mm)	C installed (mm)	C free (mm)	R.P.M. max.	Code	Weight (kg)	Nominal torque (mkg)
Flector 4MKG	91	28	8	65	75	6800	**160201**	0,227	4
Flector 9MKG	117	32	10	85	96	5000	**160202**	0,334	9
Flector 16MKG	142	46	12	100	110	4500	**160203**	0,839	16
Flector 25MKG	181	51	14	132	146	3500	**160204**	1,002	25
Flector 35MKG	202	54	18	150	170	3000	**160205**	1,412	35
Flector 50MKG	232	62	20	170	195	2800	**160206**	2,32	50
Flector 70MKG	263	68	20	190	216	2400	**160207**	3,309	70

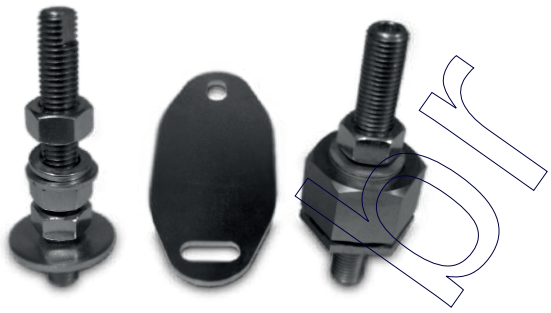
AMC MECANOCAUCHO® TYPE DP

Type	Code	Force kg	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
ELEMENT DP-2	**160241**	174	84	52	M-12	30	35	84,5	50	3	0,75
ELEMENT DP-4	**160242**	300	120	75	M-16	44	49	120	75	5	1,777
ELEMENT DP-6	**160243**	1000	220	137	M-24	80	80	20	133	10	-
HOOD DP-2	**160251**	174	84	52	M-12	30	35	84,5	50	3	0,416
HOOD DP-4	**160252**	300	120	75	M-16	44	49	120	75	5	1,461
HOOD DP-6	**160253**	1000	220	137	M-24	80	80	20	133	10	-
BUSHING DP-2	**160261**	174	84	52	M-12	30	35	84,5	50	3	-
BUSHING DP-4	**160262**	300	120	75	M-16	44	49	120	75	5	0,249
BUSHING DP-6	**160263**	1000	220	137	M-24	80	80	20	133	10	-



* OPTIONS: - Hood
- Accessoires:
2 bushings
+ 2 nuts
+ 2 washers

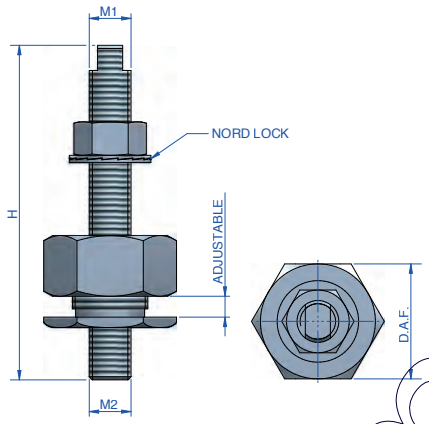
HEIGHT ADJUSTING SYSTEMS



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

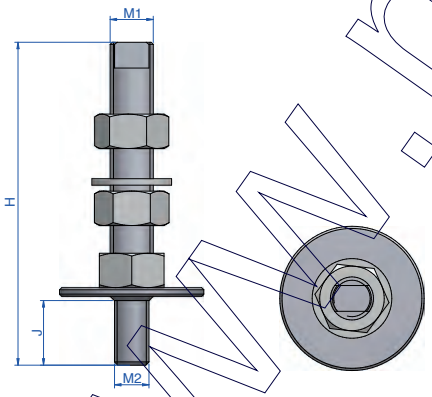
It is recommendable to settle the mountings at least 48hours before the alignment of the engine installation, especially for close coupling tolerances.

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



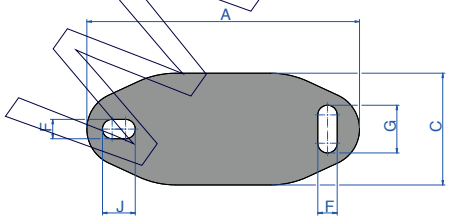
Hi-Sec

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

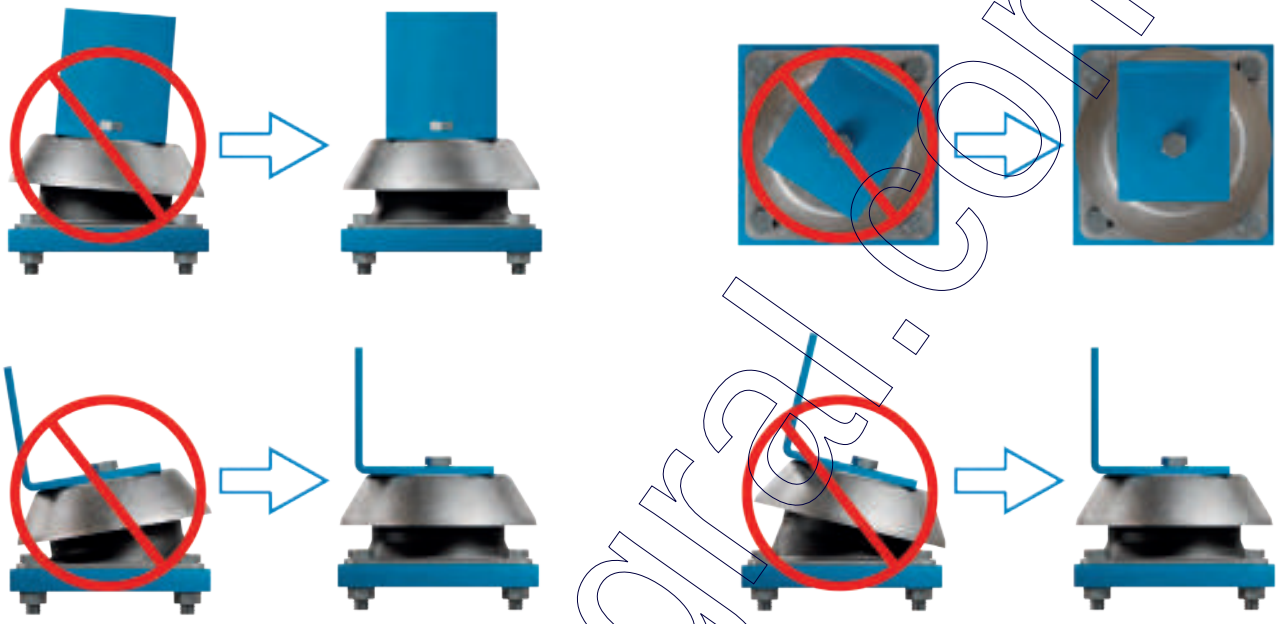
Type	Code	A (mm)	C (mm)	D (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	Weight (kg)
SMALL	**136301**	120	60	100	14	11	3	14	11	-
MEDIUM	**136302**	183	75	140	30	13	4	13	22	-
LARGE	**136303**	228	112	182	34	18	5	18	26	-

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.

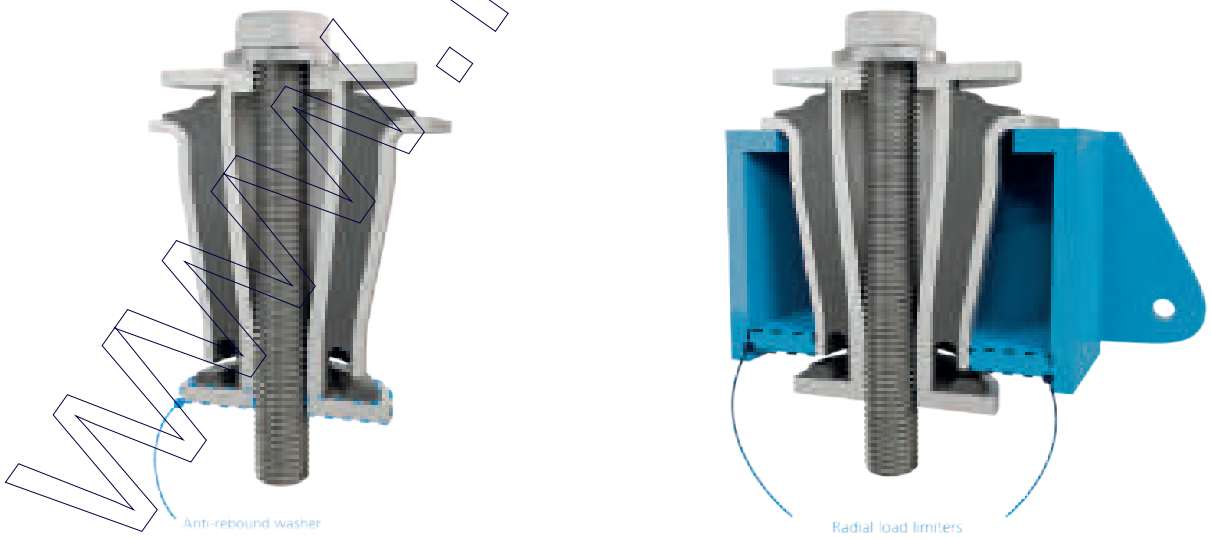


RECOMMENDATIONS FOR THE CONICAL MOUNTS

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.

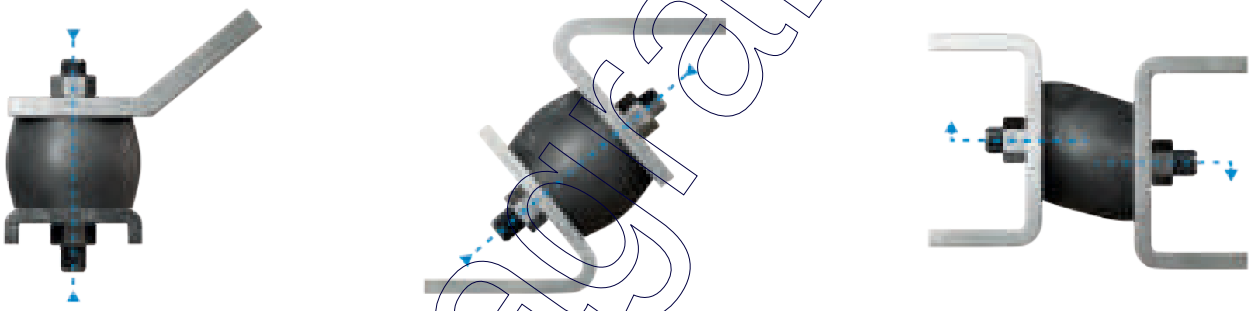
Care should be taken to make sure that the protective hood has the same or a greater diameter than that of the diameter of the rubber element.

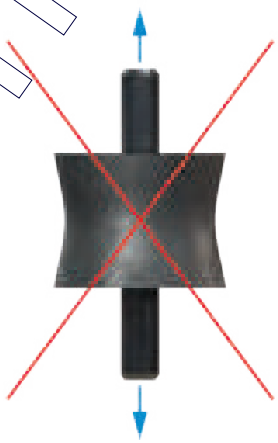
We have a standard range of Mecanocaucho® protection hoods. Check them out.

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.

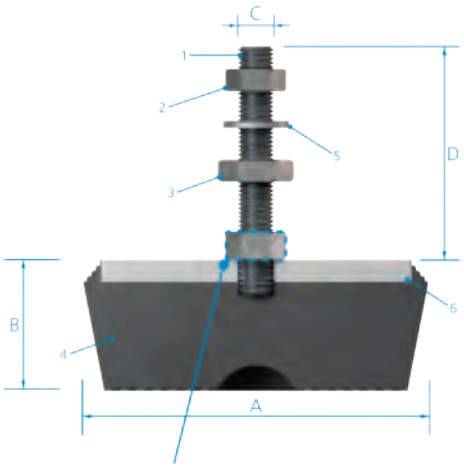
Alignment should therefore be checked 48 hours after the installation of the machine.

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

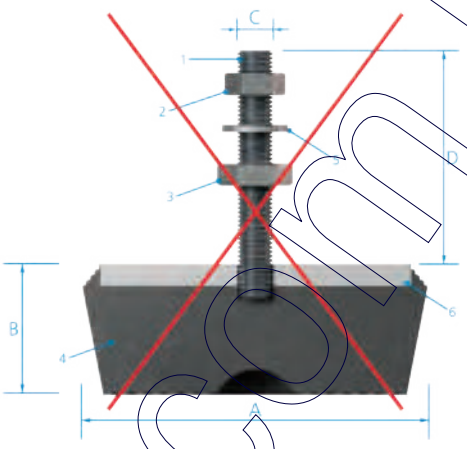
RECOMMENDATIONS FOR AMC MECANOCAUCHO® MACHINE MOUNTS WITHOUT ADJUSTABLE HOOD

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:

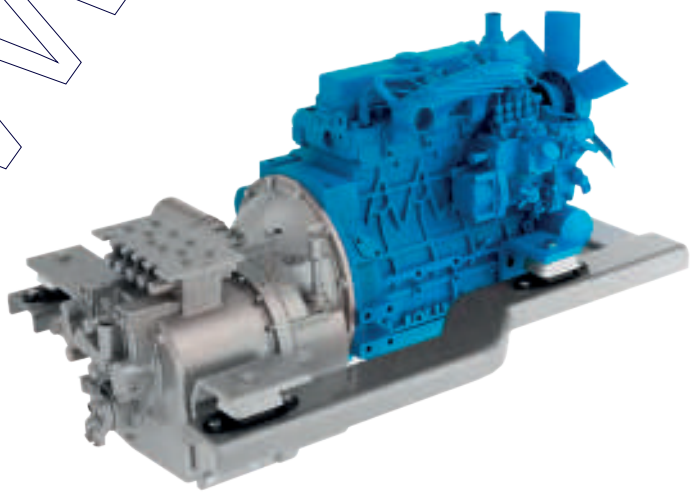
	M8	M10	M12	M16	M20	M24
Tightening torque Nm	16	32	55	125	190	285

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.

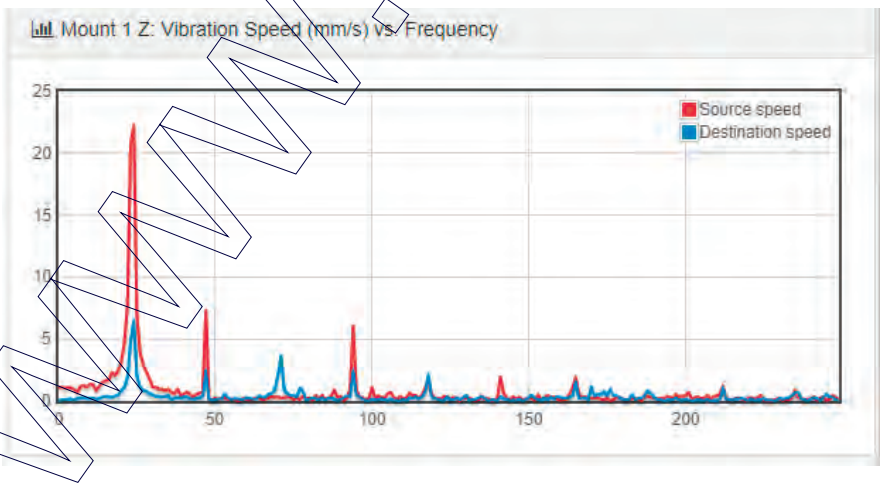
ADVANTAGES

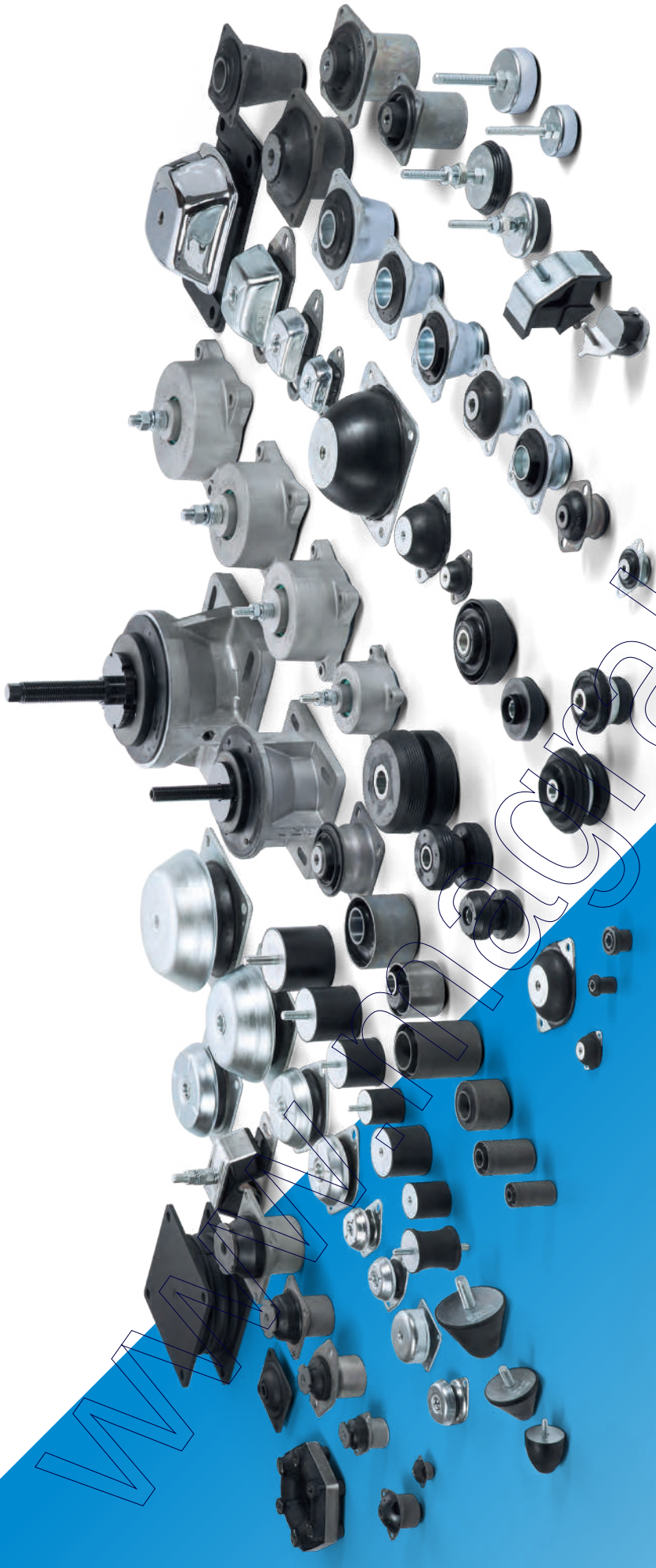
- Compact design
- 3 axis accelerometer
- DC to 500Hz useful bandwith
- Low noise
- iOS and Android compatible

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.