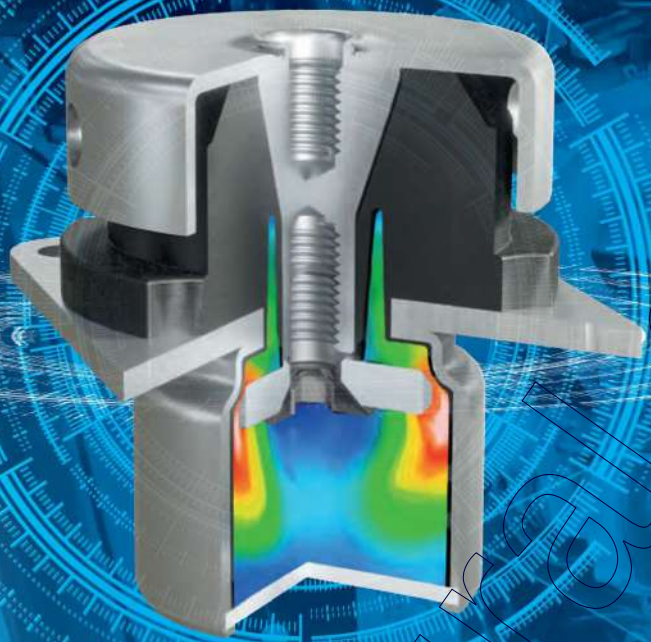
AMC
MECANOCAUCHO



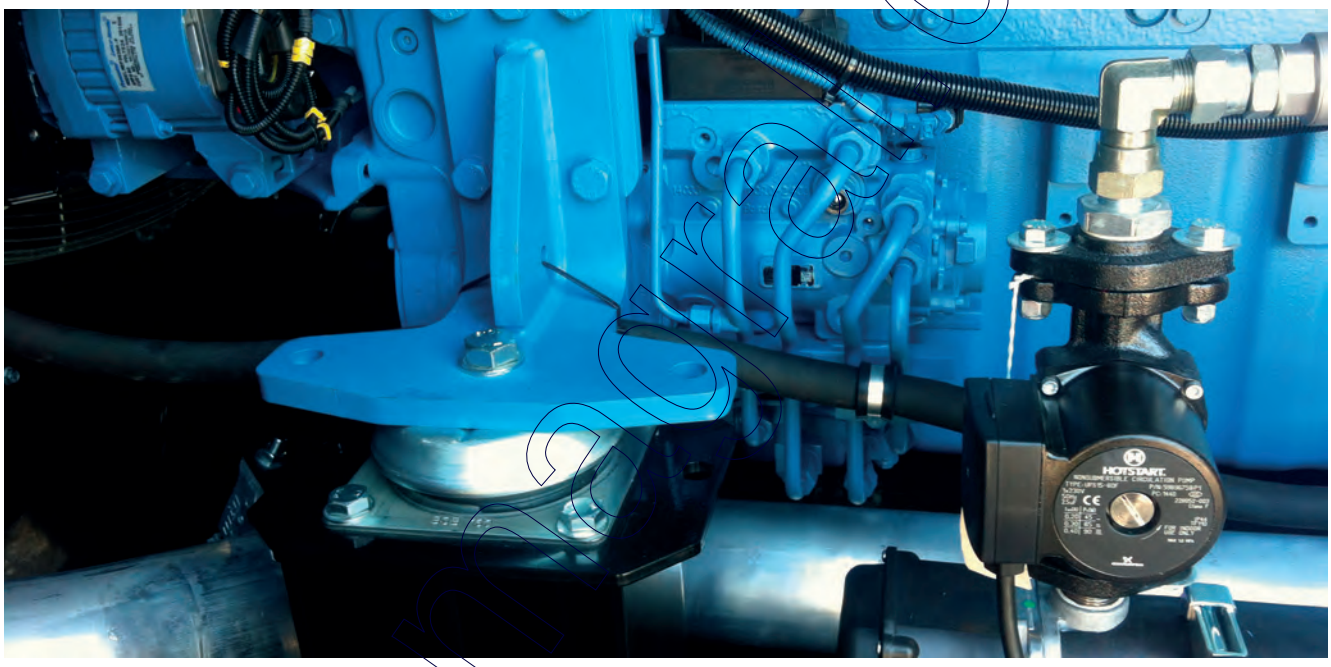
RUBBER METAL

Anti vibration mounts
AMC MECANOCAUCHO®

APPLICATIONS

Our products are used in sectors such as:

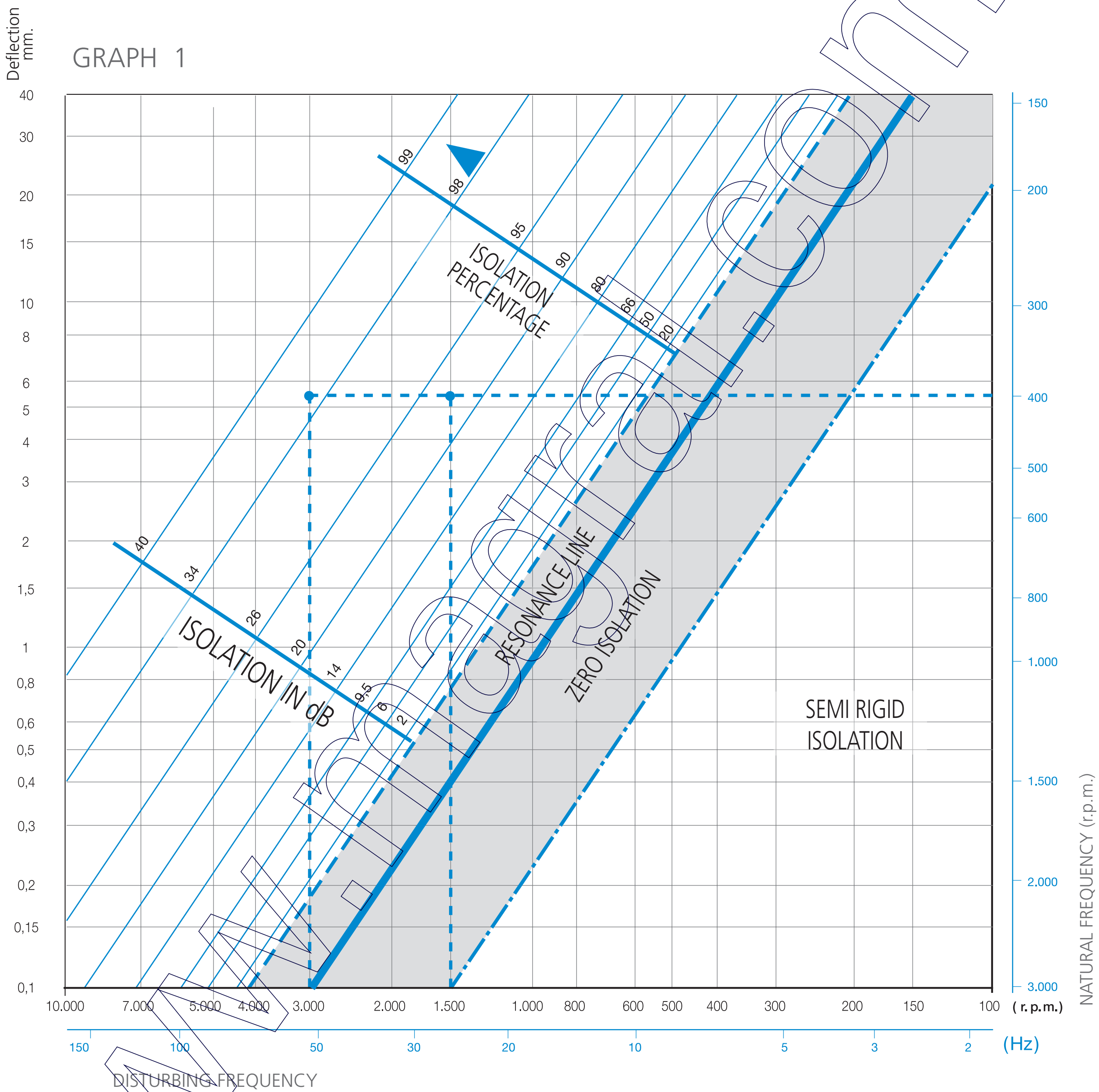
- Generation of electrical energy
- Air compression
- Pumping of liquids
- Industrial vehicles
- Machine Tools
- Marine propulsion and auxiliary equipment
- Agricultural and construction equipment machinery
- Acoustic isolation of premises and sites
- Vibrating screens, Hoppers, Silos, Feeder screens



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

MECANOCAUCHO

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

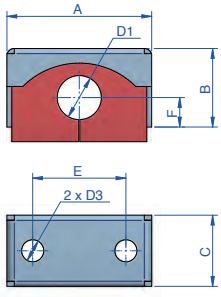
OTHERS

AKUSTIK PIPE / PIPE OMEGA+ SYLOMER®

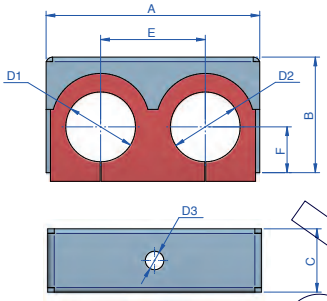
AMC-MECANOCAUCHO® Akustik Pipes are specially suitable for applications where rigid or flexible pipes must be isolated, both for static and dynamic applications.

GO TO VIDEO

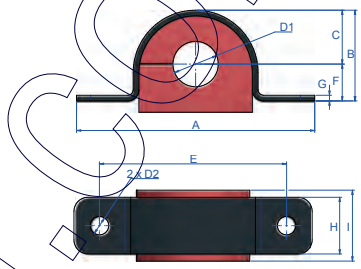
TYPE B



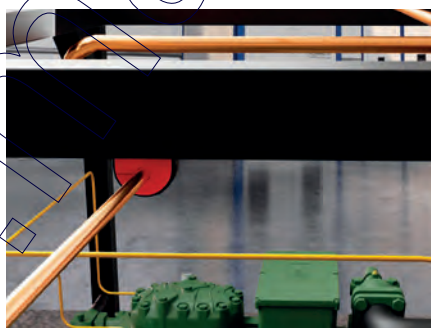
TYPE A

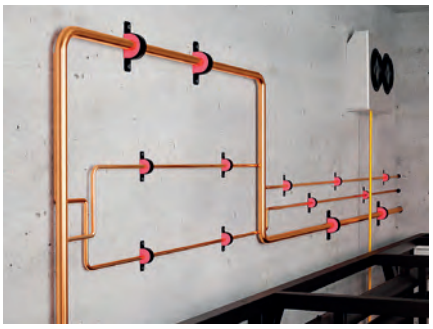


OMEGA

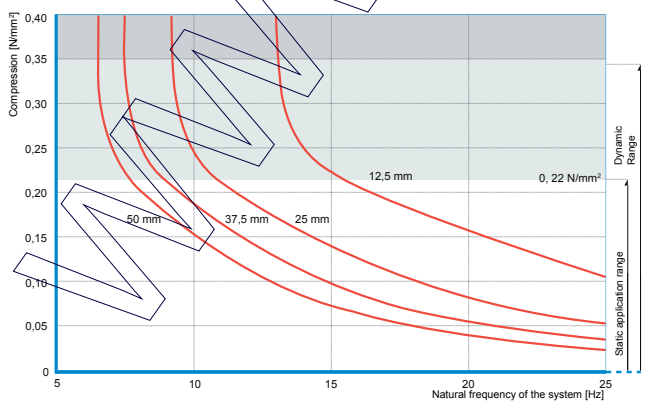


Type	A (mm)	B (mm)	C (mm)	D1 (Min.)	D2 (Max.)	E (mm)	F (mm)	D3 (Max.)	Code
Type A	70	34,5	29	15	18	36	15	8,5	**23872**
	70	34,5	29	18	18	36	15	8,5	**23873**
	82	42	29	21,2	24,3	43	15	8,5	**23874**
	70	34,5	29	22	22	36	13	8,5	**23871**
	98	51,5	29	28	28	48	21	8,5	**23876**
	98	51,5	29	32	32	48	21	8,5	**23875**
Type B	59	32	29	18	-	38	12	9	**23877**
Type Omega	84	32	19	10	6,5	66	13	-	**23892**
	84	32	19	14	6,5	66	13	-	**23893**
	94	42	24	20	6,5	76	18	-	**23894**
	94	42	24	26	6,5	76	18	-	**23895**
	69	24	13	5,5	6,5	51	11	-	**23896**
	84	32	19	16	6,5	66	13	-	**23897**
	104	50	28	33	6,5	86	22	-	**23898**

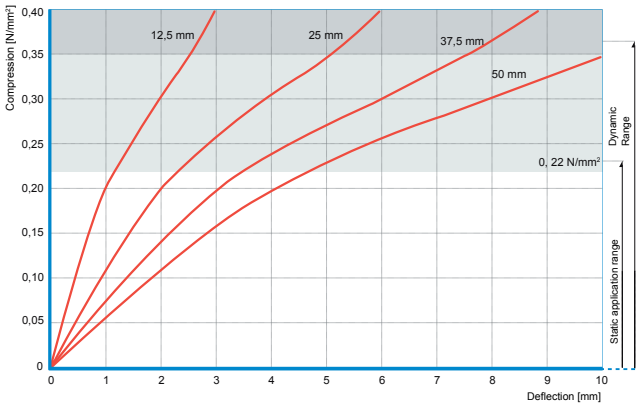




NATURAL FREQUENCY



LOAD-DEFLECTION



WF

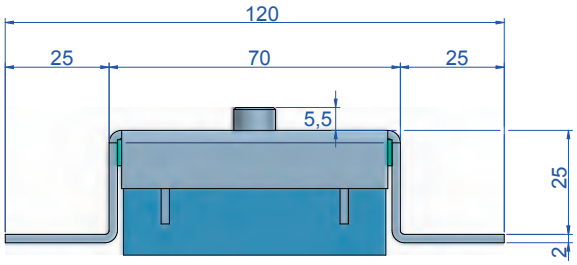
GO TO VIDEO

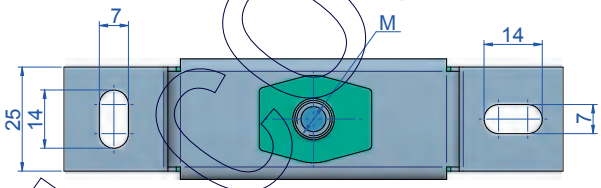
DESCRIPTION

A range designed for the suspension of loudspeakers, electrical panels, air conditioning equipment, etc.

These mounts are also suitable for insulating standpipes, or any type of lightweight ductwork that requires insulation.

They have a robust metal structure that is «FAIL SAFE» overload proof.





Type	Max. Load (kg)	M	Weight (gr)	Code
Akustik + Sylomer WF 5	2.5-5	M6	119	**23805**
		M8	119	**23806**
Akustik + Sylomer WF 10	5-10	M6	124	**23807**
		M8	124	**23808**
Akustik + Sylomer WF 15	10-15	M6	127	**23809**
		M8	127	**23810**

GO TO CALCULATION TOOL

ONLINE CALCULATION

This calculation tool considers the use of 4 anti-vibration mounts.

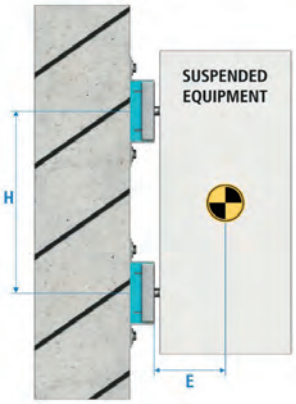
It is important to make the installation so the following limits are not exceeded:

- **Max.** separation of the center of gravity from the wall (distance E of the schematic): 30cm
- **Min.** vertical separation between WF mounts (distance H of the schematic): 20cm

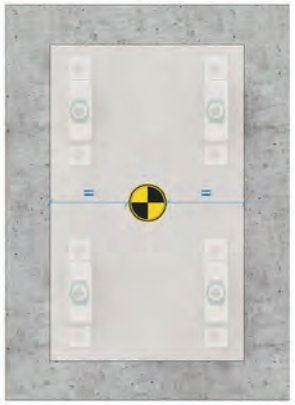
Load: **Max. 60kg** kg lbs

Frequency: **RPM** RPM Hz

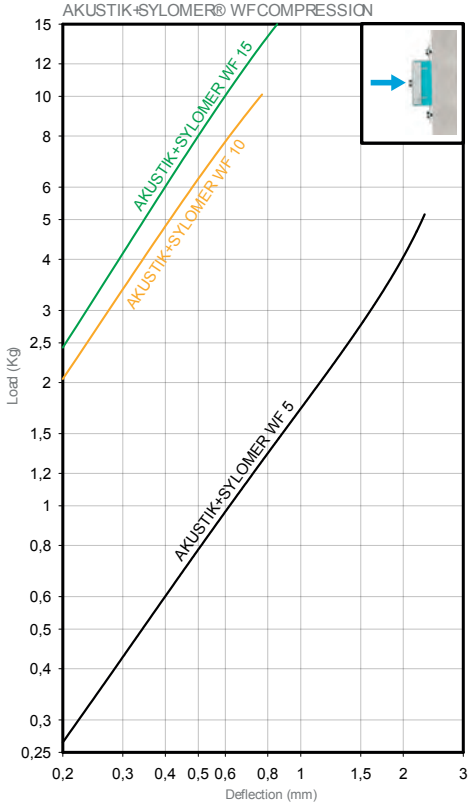
Side view



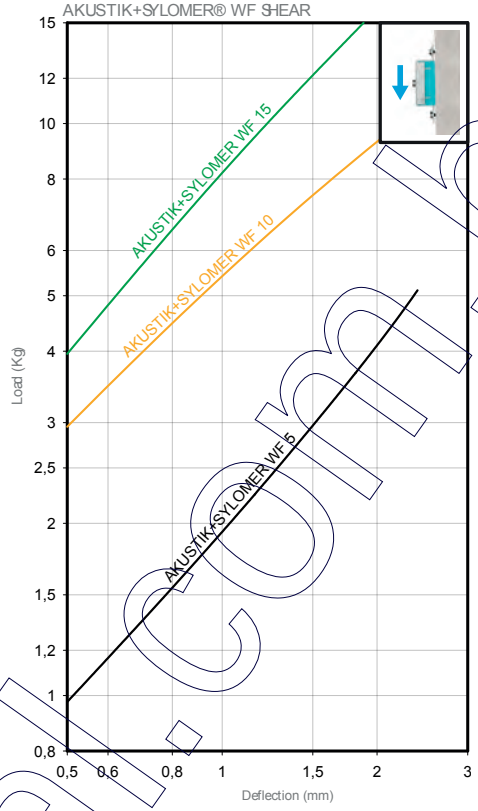
Front view

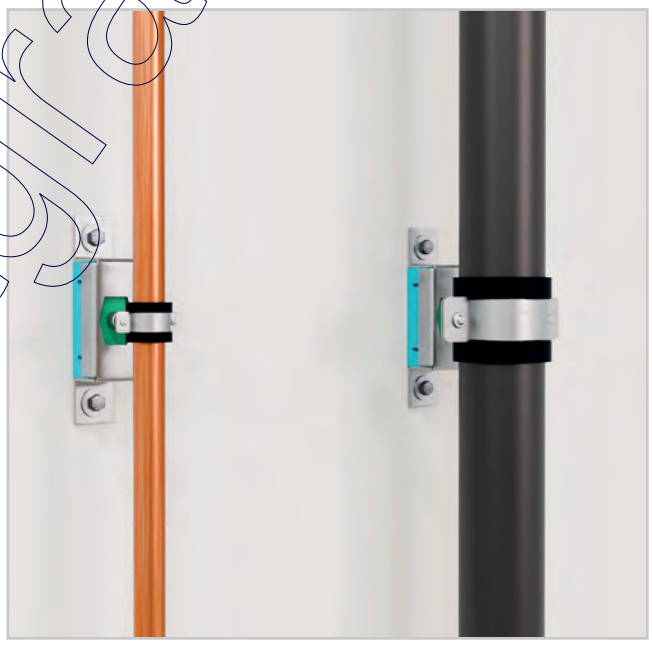


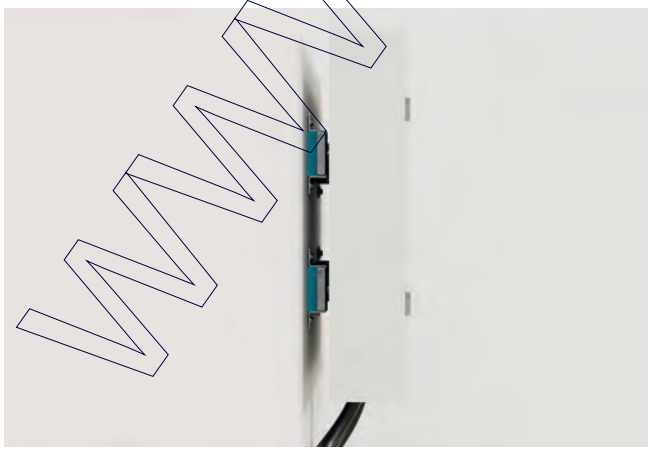
LOAD DEFLECTION CURVES
AKUSTIK+SYLOMER® WF COMPRESSION



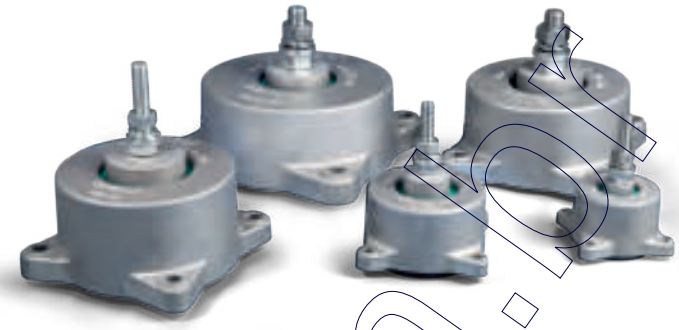
LOAD DEFLECTION CURVES
AKUSTIK+SYLOMER® WF SHEAR







FZ + SYLOMER® MOUNTS



DESCRIPTION

The AMC MECANOCAUCHO® FZ mounts use high resiliency Sylomer® polyurethane compounds. The internal architecture of the mount is composed of two metal parts surrounded by the elastic compound. The exterior metallic armor incorporates 4 holes for the fixation of the mount to the frame. The interior metal part consists of a machined metal ring that transfers the traction and compression loads to the elastomer. This machined metal ring has a wider diameter than the exterior metal armor acting as a failsafe device.

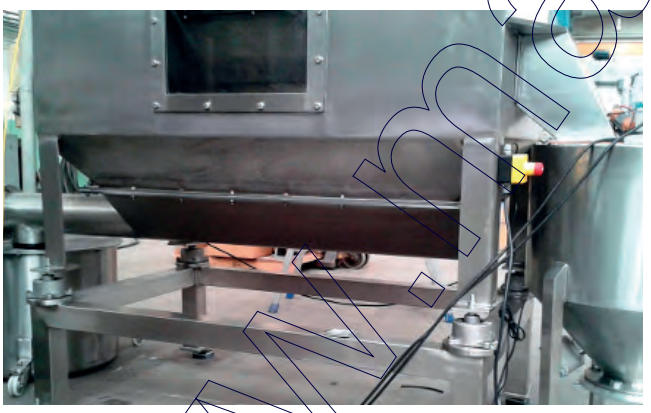
TECHNICAL CHARACTERISTICS

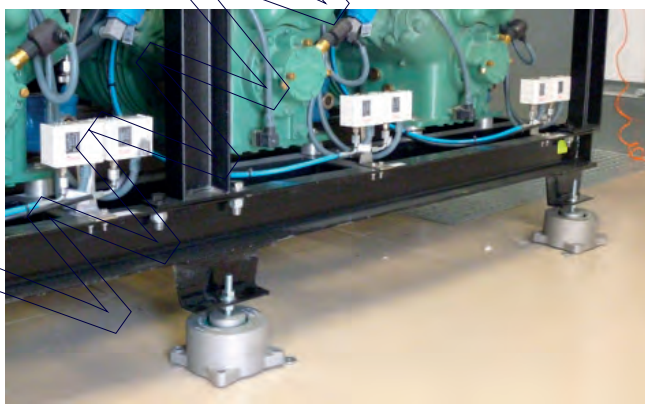
- The AMC-MECANOCAUCHO FZ mounts incorporate an interlocking metal component that provide a fail-safe protection for mobile applications. This device limits the ascending vertical movement when the mounting is submitted to shocks at traction.
- The thickness of the metal parts are robust and are suitable for off-road applications.The metal parts have a suitable anticorrosive treatment for outdoor applications.
- The Sylomer® polyurethane compound is oil resistant and the temperature range of the FZ mounts is -30˚C to +70˚C.

APPLICATIONS

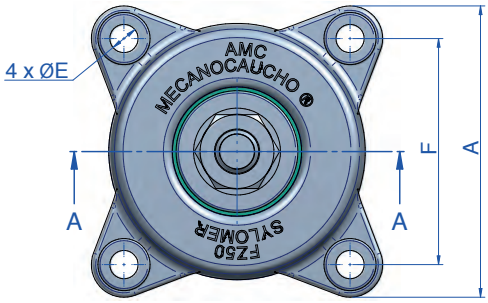
The AMC MECANOCAUCHO® FZ mounts have been primarily designed for static applications.

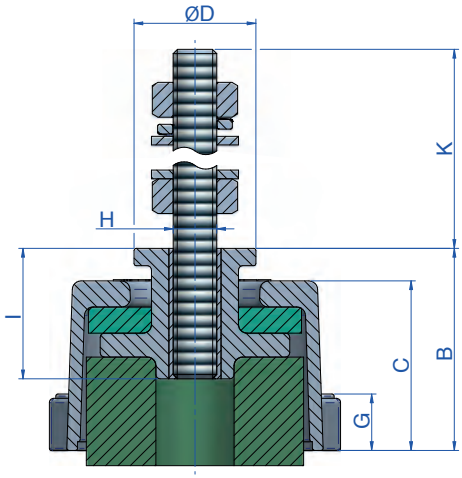
They are often used for the isolation of sensitive equipment embarqued on vehicles submitted to shocks.





Example of installation on a HVAC equipment

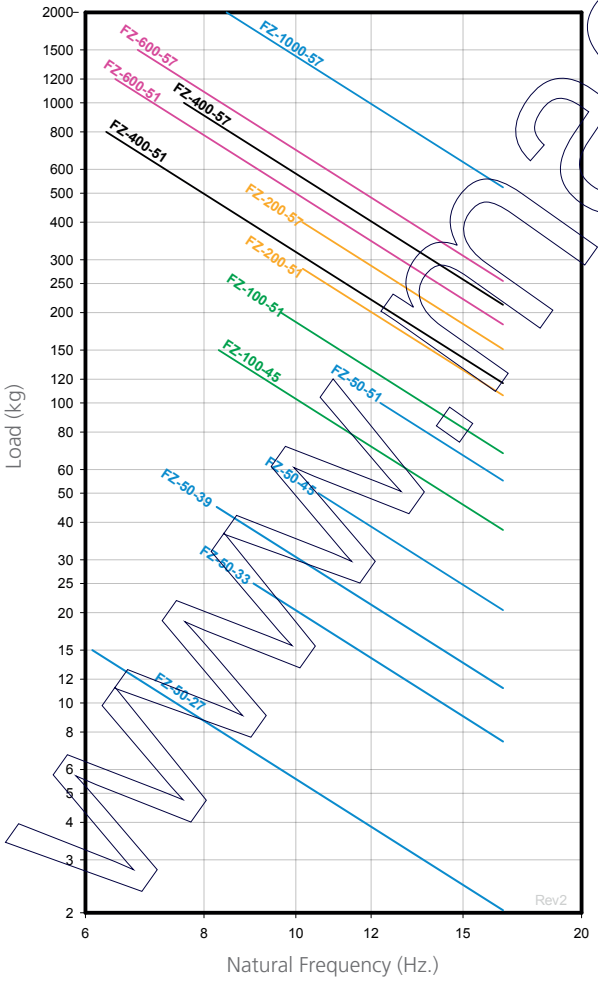




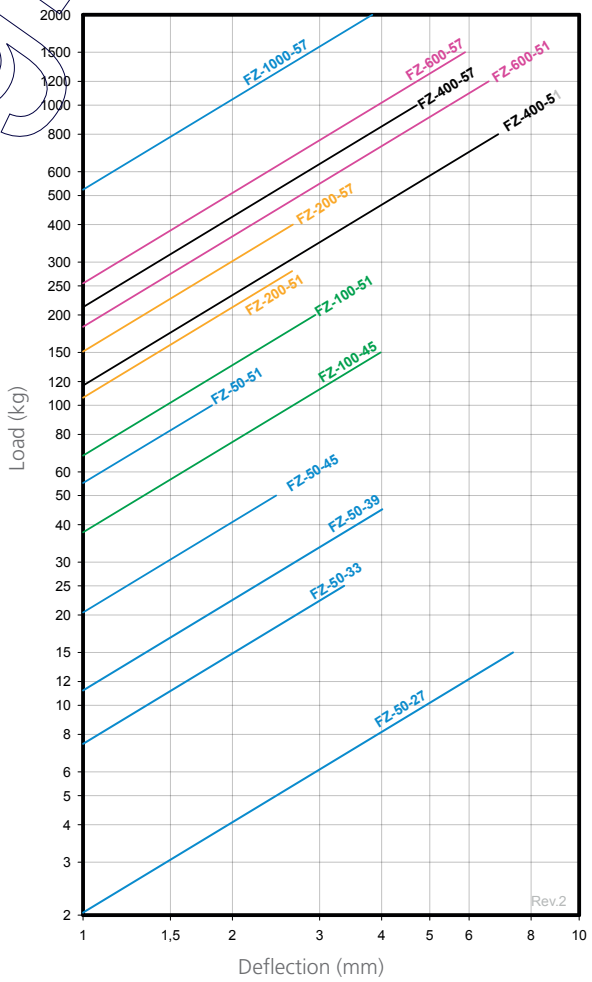
A-A SECTION

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	K (mm)	Load (kg)	Weight (gr.)	Code
FZ-50-27-M10 + LEV KIT	67	46.5	39	28	6.5	52	13	10	26	60	15	311	**176293**
FZ-50-33-M10 + LEV KIT	67	46.5	39	28	6.5	52	13	10	26	60	25	311	**176295**
FZ-50-39-M10 + LEV KIT	67	46.5	39	28	6.5	52	13	10	26	60	45	311	**176297**
FZ-50-45-M10 + LEV KIT	67	46.5	39	28	6.5	52	13	10	26	60	50	311	**176281**
FZ-50-51-M10 + LEV KIT	67	46.5	39	28	6.5	52	13	10	26	60	50-100	311	**176291**
FZ-100-45-M12 + LEV KIT	82	56	48	25	6.5	67	13	12	27,5	60	100-150	464	**176299**
FZ-100-51-M12 + LEV KIT	82	56	48	25	6,5	67	13	12	27,5	60	150-200	464	**176301**
FZ-200-51-M12 + LEV KIT	109	72	55	40	8,5	90	15	12	27,5	60	170-280	978	**176311**
FZ-200-57-M12 + LEV KIT	109	72	55	40	8,5	90	15	12	27,5	60	280-400	978	**176321**
FZ-200-57-M14 + LEV KIT	109	72	55	40	8,5	90	15	14	27,5	60	280-400	978	**176323**
FZ-400-51-M14 + LEV KIT	155	94	80	65	12,5	125	22	14	27,5	60	460-800	2461	**176331**
FZ-400-57-M16 + LEV KIT	155	94	80	65	12,5	125	22	16	27,5	60	800-1000	2461	**176341**
FZ-600-51-M18 + LEV KIT	175	94	80	65	14	140	23	18	28	60	1000-1200	3077	**176351**
FZ-600-57-M20 + LEV KIT	175	94	80	65	14	140	23	20	28	60	1200-1500	3077	**176361**
FZ-1000-57-M20 + LEV KIT	205	95	80	65	16	162	28	20	28	60	1500-2000	3751	**176371**
FZ-50-27-M10	67	46.5	39	28	6.5	52	13	10	26	-	15	260	**176294**
FZ-50-33-M10	67	46.5	39	28	6.5	52	13	10	26	-	25	260	**176296**
FZ-50-39-M10	67	46.5	39	28	6.5	52	13	10	26	-	45	260	**176298**
FZ-50-45-M10	67	46.5	39	28	6.5	52	13	10	26	-	50	260	**176282**
FZ-50-51-M10	67	46.5	39	28	6.5	52	13	10	26	-	50-100	260	**176292**
FZ-100-45-M12	82	56	48	25	6.5	67	13	12	27,5	-	100-150	380	**176300**
FZ-100-51-M12	82	56	48	25	6,5	67	13	12	27,5	-	150-200	380	**176302**
FZ-200-51-M12	109	72	55	40	8,5	90	15	12	27,5	-	170-280	868	**176312**
FZ-200-57-M12	109	72	55	40	8,5	90	15	12	27,5	-	280-400	868	**176322**
FZ-200-57-M14	109	72	55	40	8,5	90	15	14	27,5	-	280-400	868	**176324**
FZ-400-51-M14	155	94	80	65	12,5	125	22	14	27,5	-	460-800	2253	**176332**
FZ-400-57-M16	155	94	80	65	12,5	125	22	16	27,5	-	800-1000	2253	**176342**
FZ-600-51-M18	175	94	80	65	14	140	23	18	28	-	1000-1200	2756	**176352**
FZ-600-57-M20	175	94	80	65	14	140	23	20	28	-	1200-1500	2756	**176362**
FZ-1000-57-M20	205	95	80	65	16	162	28	20	28	-	1500-2000	3348	**176372**

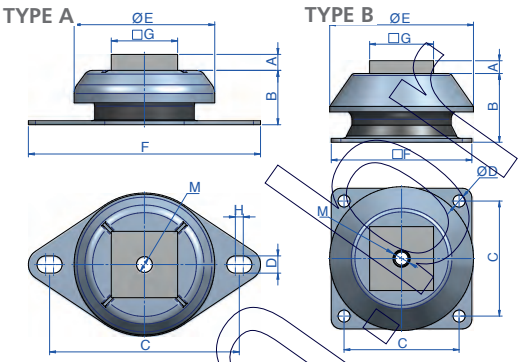
NATURAL FREQUENCY
AMC MECANOCAUCHO® FZ + Sylomer®



LOAD DEFLECTION GRAPH
AMC MECANOCAUCHO® FZ + Sylomer®

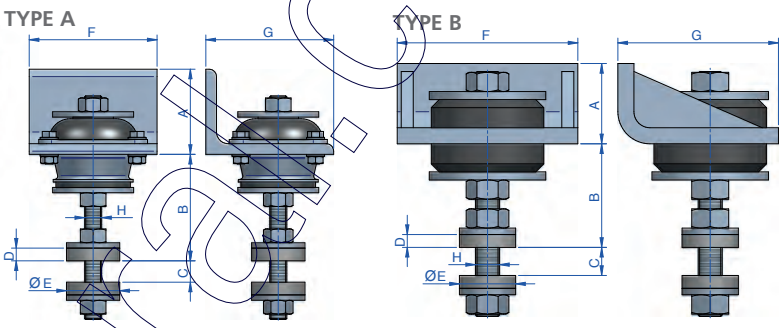


SFC MARINE EXHAUST MOUNTS



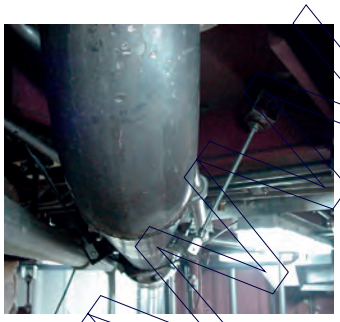
Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	M	Shore	Max. Load (kg)	Code
Type A	12	34	123,2	10	92	150	50	4,4	M12	60 Sh	270	**709301**
	12	41	143	13	106	175	50	6	M12	60 Sh	420	**709305**
	12	53,5	182	14,5	156	218	90	6	M16	60 Sh	800	**709311**
Type B	12	105	180	19	230	220	90	-	M24	60 Sh	3400	**709315**

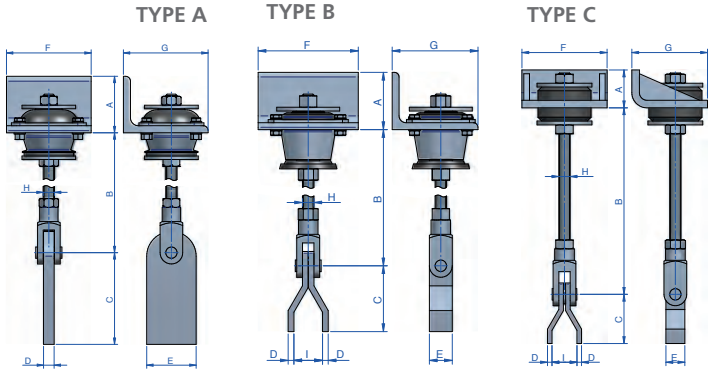
SFT MARINE EXHAUST MOUNTS



Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Shore	Max. Load (kg)	Code
Type A	50	51,5	20	12	50	110	100	M12	45 Sh	75	**709201**
	50	51,5	20	12	50	110	100	M12	60 Sh	140	**709205**
	50	51,5	20	12	50	110	100	M12	45 Sh	100	**709211**
	50	51,5	20	12	50	110	100	M12	60 Sh	180	**709215**
	80	80	40	12	50	120	120	M16	40 Sh	140	**709221**
	80	80	40	12	50	120	120	M16	60 Sh	300	**709225**
	80	80	40	12	50	120	120	M16	60 Sh	500	**709231**
	80	80	40	12	50	120	120	M16	70 Sh	750	**709235**
	100	100	50	12	50	175	150	M20	45 Sh	900	**709241**
	100	100	50	12	50	175	150	M20	60 Sh	1250	**709245**
Type B	100	120	50	12	70	225	200	M30	60 Sh	2000	**709251**

ST MARINE EXHAUST MOUNTS





Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Shore	Max. Load (kg)	Code
Type A	50	325	118	10	50	110	100	M12	-	45 Sh	75	**709101**
	50	325	118	10	50	110	100	M12	-	60 Sh	140	**709105**
	50	325	118	10	50	110	100	M12	-	45 Sh	100	**709111**
	50	325	118	10	50	110	100	M12	-	60 Sh	180	**709115**
	80	477	130	15	70	120	120	M16	-	40 Sh	140	**709121**
	80	477	130	15	70	120	120	M16	-	60 Sh	300	**709125**
	80	477	130	15	70	120	120	M16	-	60 Sh	500	**709131**
	80	477	130	15	70	120	120	M16	-	70 Sh	750	**709135**
Type B	100	485	115	10	40	175	150	M20	50	65 Sh	1100	**709141**
	100	485	115	10	40	175	150	M20	50	75 Sh	1570	**709145**
Type C	100	500	130	12	50	225	200	M30	66	60 Sh	2000	**709151**

SVT

DESCRIPTION

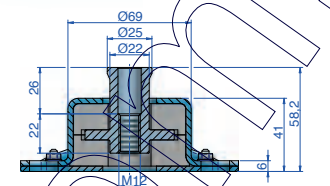
SVT mounts are anti-vibration mounts with pre-stressed stainless steel mesh, designed for high-temperature applications. Their robust metal parts ensure resistance to tensile loads, and the design provides equal stiffness in tension and compression, ideal for vertical vibrations.

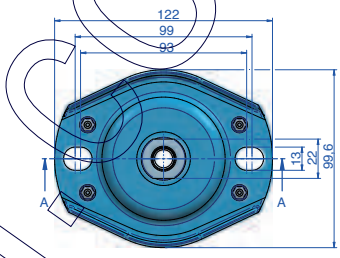
With PU-coated carbon steel housing and stainless steel wire mesh, they offer excellent corrosion resistance and damping, minimizing resonance amplification. These mounts are used in high-temperature or mobile applications, such as ships, rail, road transport, and equipment like engines, pumps, and exhaust systems.

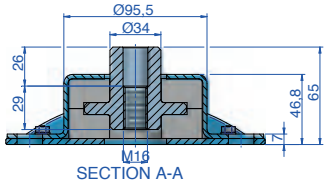
TECHNICAL CHARACTERISTICS

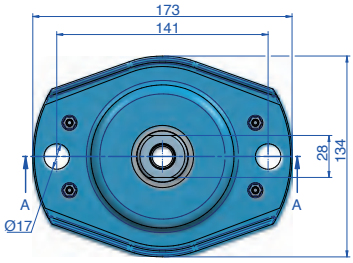
SVT mounts are anti vibration mounts that use a pre-stressed stainless steel mesh as elastic element. They are ideal for applications in which high temperatures are present. Its specific design allows very similar tensile and compression stiffness rates. This feature is particularly useful on those applications where vibration in the vertical sense is predominant. The metal parts are robust and incorporate a fail-safe device in order toresist tensile loads.

The steel housing has been designed to withstand to great dynamic shocks while the stainless steelmesh fits tight to avoid relative displacements. The stainless steelwire mesh and the PU coated carbon steel housing provide a higher resistance to corrosive environments. Moreover, the damping properties of the stainless steelwire mesh allows low amplification on resonance, allowing stable suspended elements.

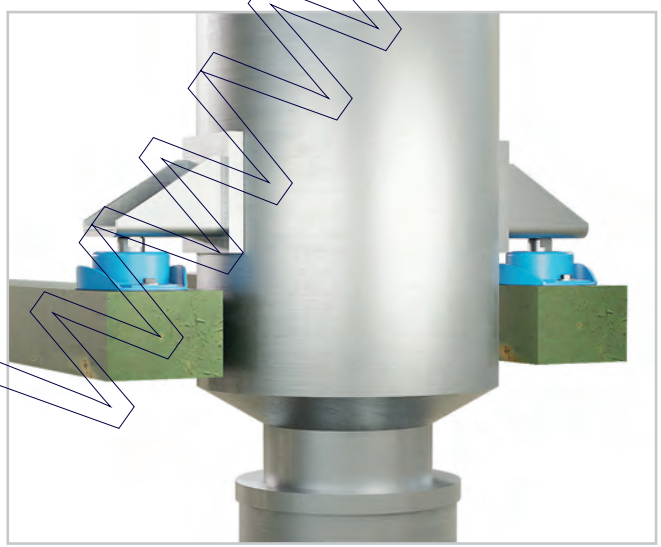


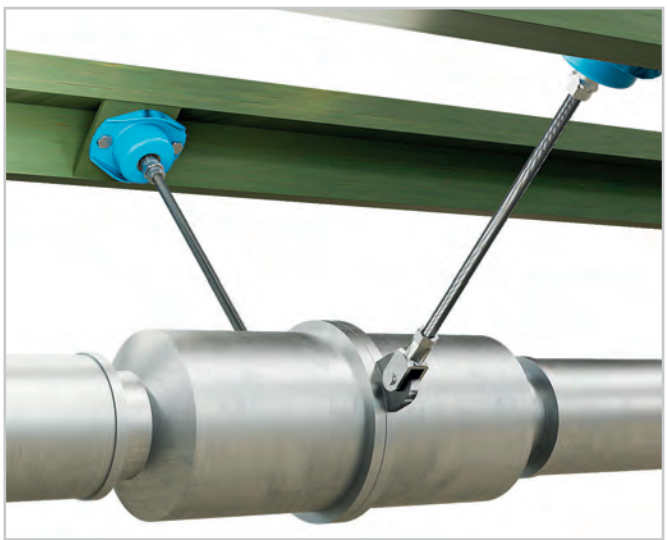




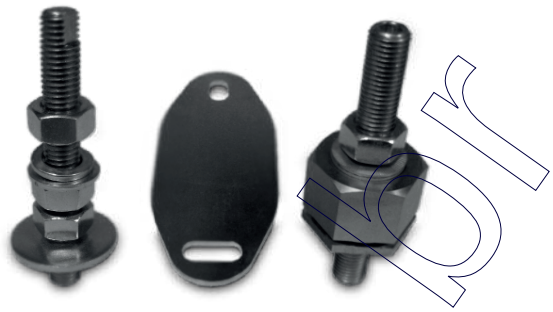


Type	Max.Load (kg)	Weight (gr)	Code
SVT-70	300	1581	**176650**
SVT-95	1400	2900	**176670**





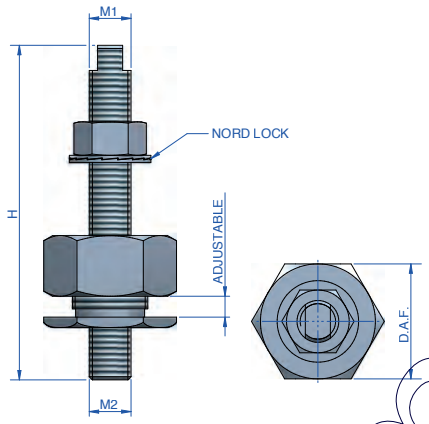
HEIGHT ADJUSTING SYSTEMS



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

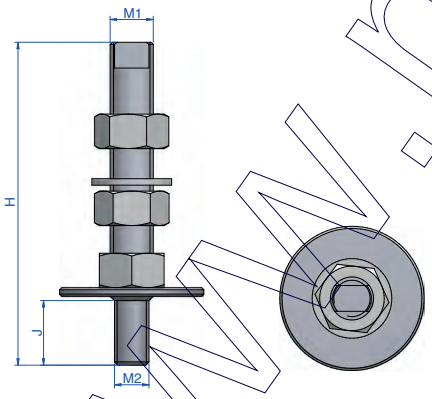
It is recommendable to settle the mountings at least 48hours before the alignment of the engine installation, especially for close coupling tolerances.

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



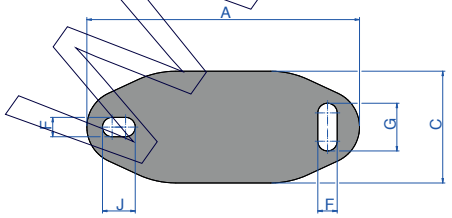
Hi-Sec

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

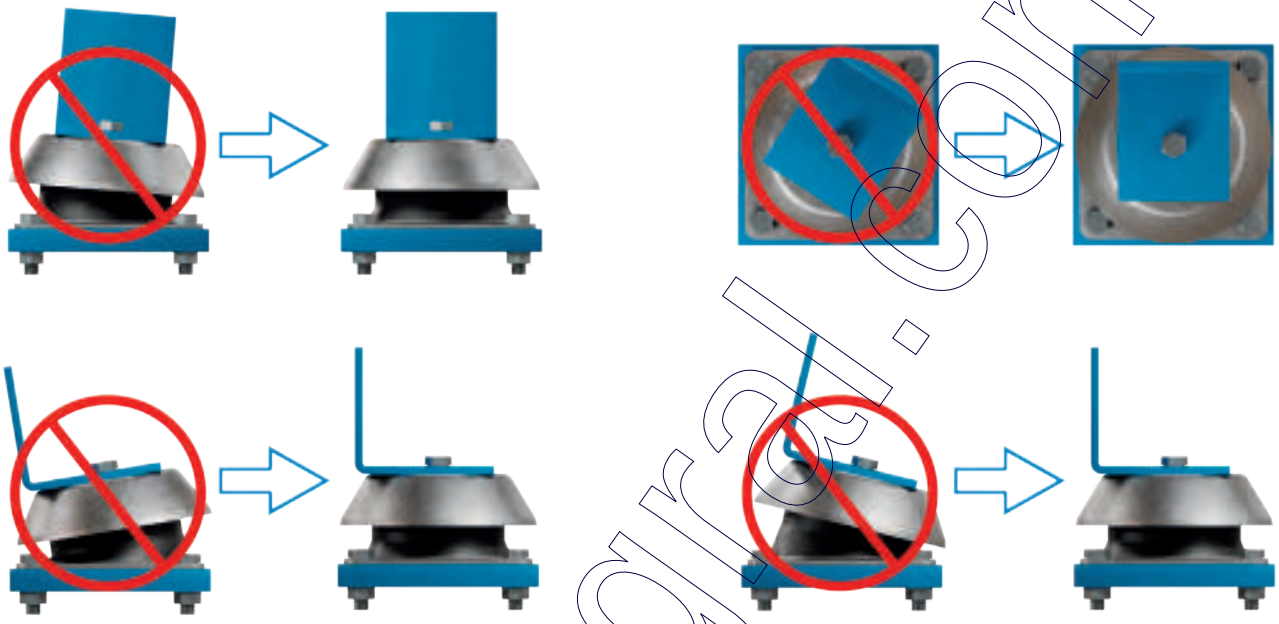
Type	Code	A (mm)	C (mm)	D (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	Weight (kg)
SMALL	**136301**	120	60	100	14	11	3	14	11	-
MEDIUM	**136302**	183	75	140	30	13	4	13	22	-
LARGE	**136303**	228	112	182	34	18	5	18	26	-

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.

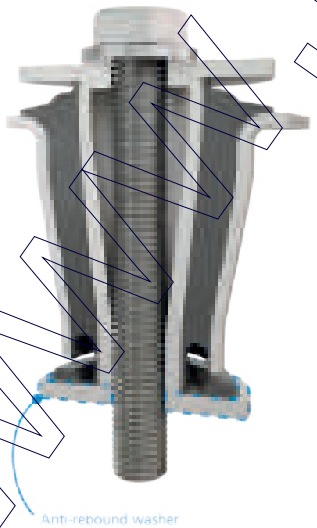


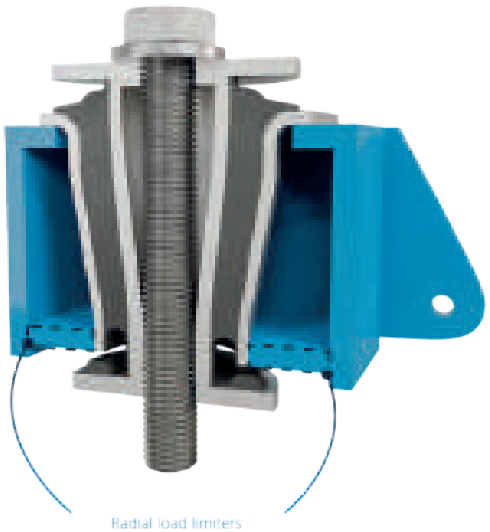
RECOMMENDATIONS FOR THE CONICAL MOUNTS

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.

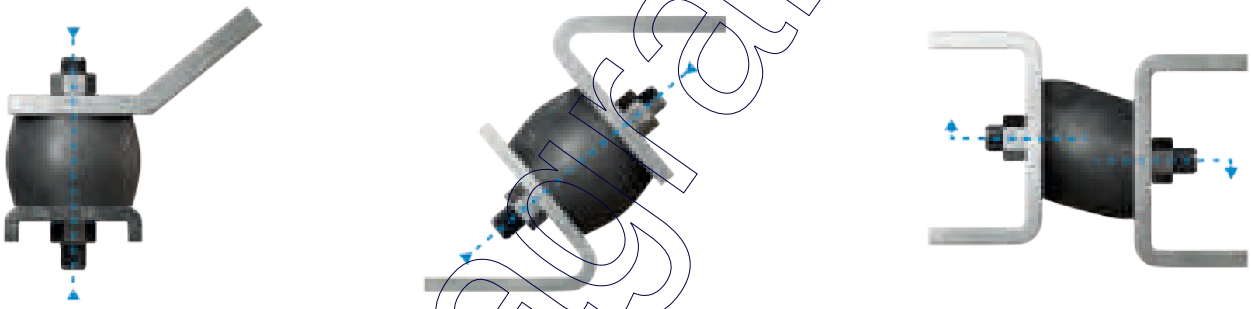
Care should be taken to make sure that the protective hood has the same or a greater diameter than that of the diameter of the rubber element.

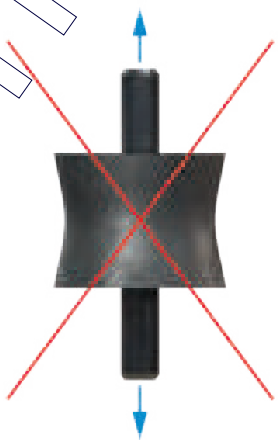
We have a standard range of Mecanocaucho® protection hoods. Check them out.

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.

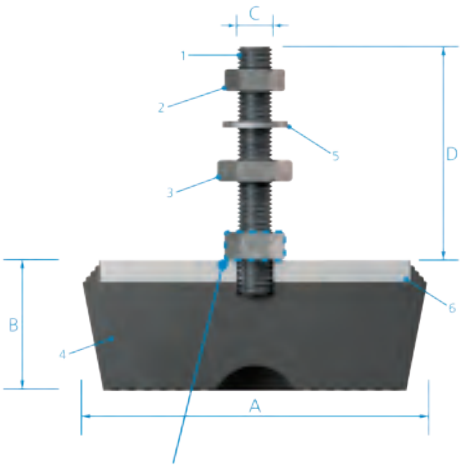
Alignment should therefore be checked 48 hours after the installation of the machine.

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

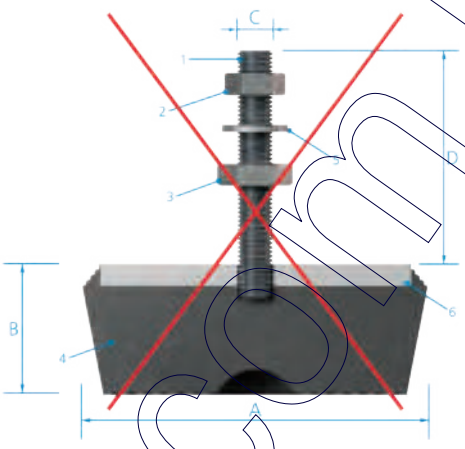
RECOMMENDATIONS FOR AMC MECANOCAUCHO® MACHINE MOUNTS WITHOUT ADJUSTABLE HOOD

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:

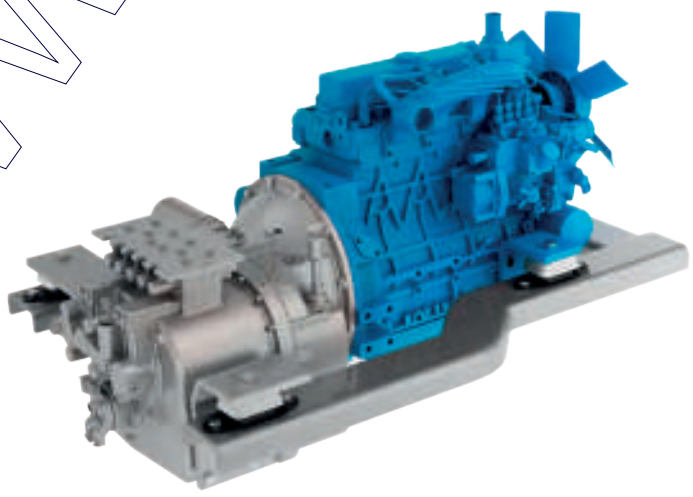
	M8	M10	M12	M16	M20	M24
Tightening torque Nm	16	32	55	125	190	285

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.

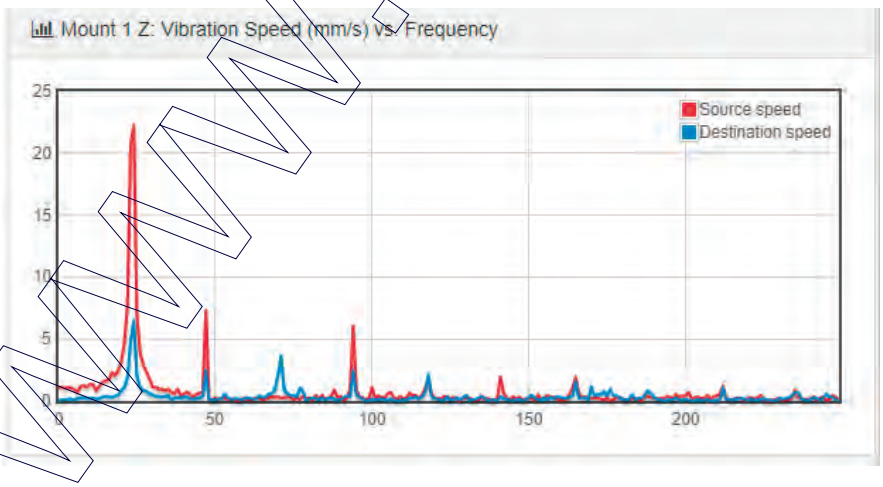
ADVANTAGES

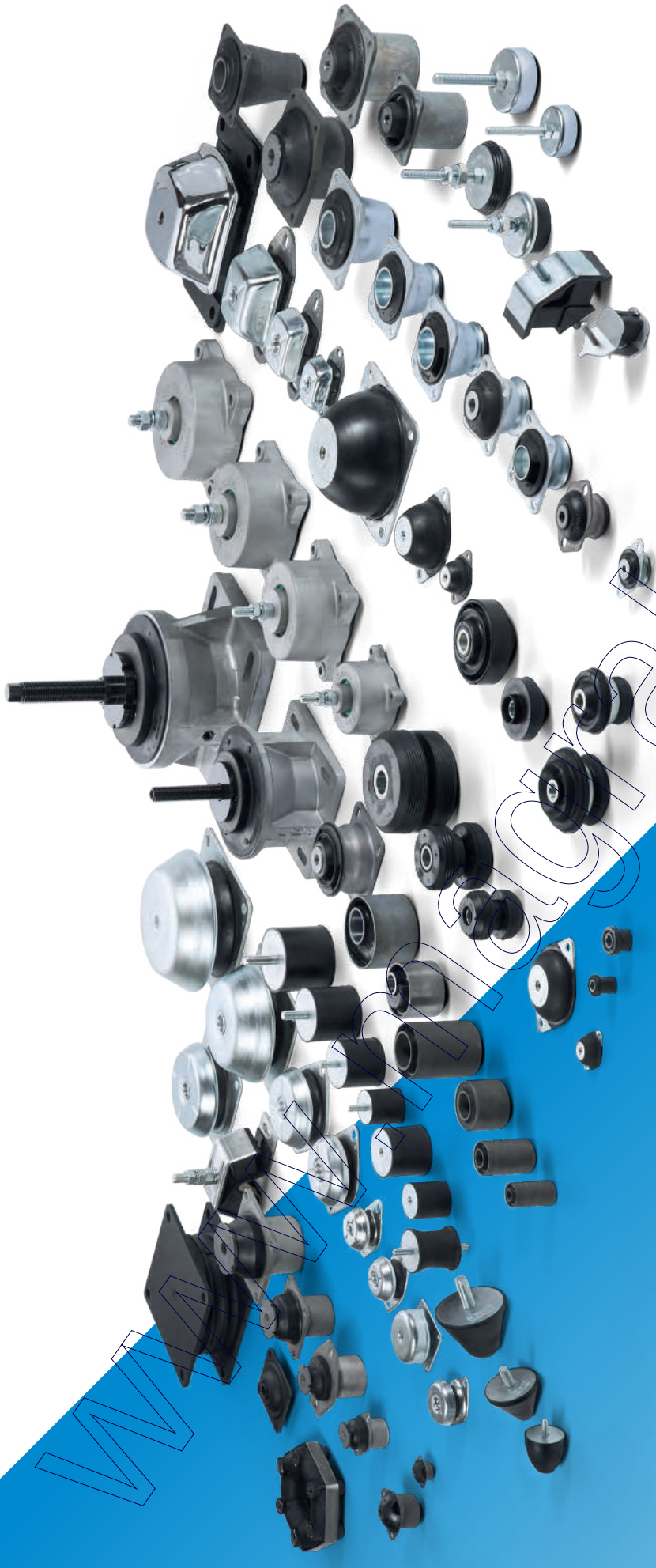
- Compact design
- 3 axis accelerometer
- DC to 500Hz useful bandwith
- Low noise
- iOS and Android compatible

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.