## VISTA MOTION Antivibration Solutions

Product Portfolio



An Evergreen Company

## Never felt better.

Vista Motion understands the challenges our customers are facing on a day to day basis. We offer a wide range of solutions to meet the even most demanding applications. The state-of-the-art product and service we provide help our customers win by improving their quality, cost, and downtime.



## Product Portfolio

1.ANB 2.Cab Mountin 3.Cushyloat HT Mounting 4.Cushyloat HT Mounting 5.Cushyloat Mounting 7.EH Mount 8.Equi-frequency Mounting - Small 9.Hydro Mount VL 10.Hydro Mount VL 11.Instrument Mount 12.Low Frequency Mountings 13.M Mounting 14.Eccentric Bush 15.Conical Mount 16.RA Mounting 17.RAB Mounting 18.RAEM Mounting 19.UD Bushes 20.UH 21.Vee-Mounting



## Choice , expertise , availability.

Our solutions are focused on the below three key areas:

- Vibration control. We work with customers to analyze causes accurately and suggest economic and reasonable isolation solutions in order to maintain and preserve pleasant and silent environment as well as protect the equipment.
- Noise reduction. To protect people from noise, Vista Motion offers both active and passive solutions to reduce noise from either the machinery or environment.
- Shock absorption. Our smartly designed and carefully engineered shock absorbers effectively dissipate kinetic energy of the shock, thus protect your investment in machinery, building, and people.

Vista Motion is making efforts to make the company one of the best producers of vibration-proof products by continuously investing in R&D through sales growth.

## Working in industry never felt better.

## INDUSTRIAL APPLICATIONS

The smartly design and carefully engineered product Vista Motion offers has been widely adopted by customers from various industries. Our robust quality control and quick delivery make us a favored supplier of antivibration solutions.

Continuous improvement and innovation is key to our success. Our ultimate goal is to help customer create a safer environment for employees, maintain high output by reducing machine downtime, and stay ahead of competition.

## Solutions for your market - Industrial

	TYPE OF MOUNT					
Stationary Installations Combustion Engines Compressors, Generators	RA/RAEM	M		RA/RAS		СЛЕНИГООТ
Mobile Installations Whicle Engines, Compressors, Generators, Marine Engines	CLISHIFICIAT	METACONE	VEE MOUNT	M M	RAEM	
Sensitive Equipment Electronics,Carneras, Fare, Small Pumps	M N	EQUI- FREQUENCY	LDW FREQLENCY			
Transit Protection Computers, Test Equipment						
Vehicles Engines, Cabs, ROPS Cage	METACONE	CAB MOLINES	ui	HYDRO MOUNT		
Instrument Mounts Electronic Racks, Radio TX/RX, Mobile	<u>м</u>		LOW IREQUENCY			
Motion Control Re-Bound, Motion Limitation	AND NO.					
Vehicle Suspension Pivot Arms, Trunnion Mounts, Gearbox Mountings	ve/up	METAXINTRIC				
General Purpose Mounts Enhaust Systems, Small Fam, Instrument Panels	METACONE	M MOUNT				

## Sustainable, productive, cost-effective.

# INDUSTRIAL ENVIRONMENTS

Through vibration control, noise reduction, and shock absorption. Vista motion work closely with our customer's to create a pleasant and productive working environment. We have successful applications across different industries and we configue to invest in new technologe@stroducts.

Our product lines cover mounts, bushers, butters and customized product and solutions. Ease of installation and maintenance free are well considered and engineered for each adduct we offer.

Choose Vista motion to be a quality supplier and the partner you can rely on When you win, we win!

## ANB

Buffer type ANB consists of a cylindrical rubber body bonded to a square baseplate of skell. Each corner of the baseplate has a fixing hole. Special highhysteresis rubber compound is used to ensure as much energy absorption as possible. The volume of the rubber is used at optimum efficiency. For new machine developments simpler designs and lighter calculated forces can be considered enabling a lower cost.

Through the damping of the rubber a high degree of energy absorption is achieved. The rubber is stiffer under dynamic conditions compared to static or pseudo static loading; hence more energy is absorbed for a given deformation.

The shock buffer type ANB is used to effectively limit movement of equipment or machine components.

#### Typical applications include:

- · Lifting cranes
- · Forestry vehicles
- · Material handling equipment







## **Cab Mount**

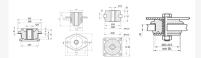
The CAB mount has been designed to provide optimum suspension characteristics. This has been achieved through ensuring the Compression and Shear stiffness characteristics being relatively stiff in their respective directions. The CAB mounts can withstand small shock loadings to help improve driving origination of the installist. The washers top and bottom to ensure a failaste aview.



#### Typical applications include:

- · Commercial and Off-Highway vehicles
- Tractors
- Engines

#### TECHNICAL DRAWING



## **Cushyfloat Mounting**

The Cushylloat mounting is a general purpose unit designed to provide effective isolation of vibration and noise arising from both static and mobile equipment. Originally designed for use with marine engines, the Metalastik Cushylloat is a simple to install. compact, low prolife mounting. It combartes 3 way control of the suspended equipment with relatively large static deflections where the rubber is loaded in stear and compression.

The design incorporates bump and rebound control features which limits excessive movement under shock loading. Top metal gives protection against oil contamination and the protective finish resists corrosion attack. Propeller thrust on marine applications is accommodated.

There are four sizes in the standard range with varying degrees of rubber hardness catering for point loads from 32Kg to 3000kg. Natural frequencies as low as 8Hz are possible.

#### TECHNICAL DRAWING



#### Typical Applications Include:

- · Marine/Industrial vehicle engines
- · Generator sets
- · Pumps and compressors



## **Cushyfloat HT Mounting**

The Cushylloat HT (High Thrust) mounting has been developed to meet the increased torque output and higher thrust load requirements of many modern manine power units. By careful design of the rubber section, nelatively high degrees of Rexibility in the vertical and lateral modes are combined with high stiffness in the longitudinal fore and all direction, thereby giving good vibration isolation properties and minimum movement under thrust forces.



The design incorporates bump and rebound control features which limit excessive movements under shock loading. The mountings have a high inibuit tensile sterngth which renders them suitable for the suspension of power units in lifeboat applications. The top gives protection against oilcore namination and the protective finish resists corros ion attack. Two designs and different rubber comp ounds allow loads between 85 and 1070kg to be accommodated.

#### Typical applications include:

Marine Engines

#### TECHNICAL DRAWING





## **Cushyfloat HD**

The latest generation of Cushylloat is a completely new and innovative design which offers engine manufacturers and boat builders Maximum versatility. This product has multiple performance benefits for customers whose requirements may be varied and challenging for conventional solutions.

The HD Cushyfloat has excellent performance characteristics with:

Up to 10mm linear vertical deflection, with low horizontal stiffnesses. This enables improved vibration isolation even at the low end of the engine speed range. Vertical and lateral buffering within the design limits the movement of the engine in tough service conditions.

The HD Cushylloat provides simplicity for engines manufacturers and end users with: An interchangeable footprint with existing mountings; minimizing retrofit installation issues.

The entire range can be formulated from just three rubber mixes; therefore reducing inventory requirements and the complexity of product selection.Installation is aided by sighting grooves so that it is easy to align the engine, and ensure the correct load distribution.

More cost effective product life and serviceability due to its modular design. Upon refurbishment, the outer casting can be re-used.

#### TECHNICAL DRAWING





#### Typical Applications Include:

- · Marine/Industrial vehicle engines
- Generator sets
- · Pumps and compressors

## **Cushyfoot Mounting**

Cushyfoot mountings have two rubber elements, used in shear and compression, to provide excellent stiffness characteristics for the isolation of a wide range of vibration frequencies.

There are three sizes, 17-0290 for loads up to 230 kg per mounting, 17-0213 for loads up to 1250 kg and 17 -0346, which will carry up to 1280 kg per mounting, will provide up to 16 mm static deflection.

## The Cushyloot mounting benefits from the following features:

- A wide load range from 50 to 1280 kg
- · Strong casting for safety and reliability
- Dissimilar horizontal stiffness gives optimum isolation and motion control

#### Typical applications include:

- · Diesel engines
- · Generator sets
- · Compressors
- Fans
- · Hydraulic units
- · Lift machinery

#### TECHNICAL DRAWING







### EH Mount

The EH is designed primarily for mobile applications where high dynamic and shock forces are encountered. Dynamic vertical movements in both the directions are restricted and excellent horizontal stability is provided.

#### The function of EH includes features as:

- · Dynamic efficiency in all directions
- · Attenuation of structure-borne noise
- · Accommodation of misalignment and distortion
- · Simple design-easy to install
- · Fail-safe installation
- · Wide load range, 40 to 1200 kg

#### Typical applications include:

- · Military vehicles
- · Agriculture vehicles
- · Construction equipment
- · Transport machinery
- · Industrial mobile machinery

#### TECHNICAL DRAWING



#### MACHINE IN OPERATION



## Equi-frequency Mounting - Small

This is a general purpose low-profile mount for use where space is restricted. Best suited for stationary applications. May also be used to protect delicate or sensitive equipment from shock or disturbances.

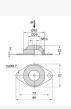
Each design has the same stiffness in vertical and horizontal directions and can be used as small anti-shock mounting when static loadings are derated.

#### Typical Applications:

- · Instrumental panels
- · Small fan sets
- · Small vacuum pumps
- Small reciprocating engines

#### TECHNICAL DRAWING







## Hydro Mount DL

The Hydro Mount DL, as a hydraulically damping rubber mount, solved the designer's conflict of how to mount a mass that is excited by wide frequency spectrum. Particularly if low frequencies between 5 Hz and 15 Hz conccur as the excitation frequency, on the one hand high damping in the natural frequency range of the system, and on the other, a good isolation property above this natural frequency (supercritical mounting) is necessary.

#### Typical Applications Include:

- Pumps
- · Compressors
- · Utility vehicle engine mount
- · Marine engine mount
- · Driver cab mount

#### TECHNICAL DRAWING

HYDRO MOUNT DL / HD





#### TYPICAL FITTING ARRANGEMENT



## Hydro Mount VL

The mount design, the chosen fluid and the hydraulic mechanism provide the characteristic wide-band damping. In cases with renout excitation frequencies in the lower frequency range, the use of this hydro mount permits an optimal mounting. By procise reduction of the fund chambers stiffness of one of the chambers, a significantly motion reduction on the significantly motions reduction on at structure. Forme sound isolation in achieved as opposed to the hydro mounts without this desion.

#### Typical Applications Include:

- · Agriculture engines
- · Construction vehicle engines
- Industrial vehicles
- · Forest machinery
- · Pumps and compressors

#### TECHNICAL DRAWING





## Instrument Mount

Instrument mounts are utilised for vibration installation of electronic components, measuring devices and precise mechanical apparatuses and for instrument panels or control panels in industrial applications. A common requirement of these mounts is that they keep vibrations or shock loads introduced via the anchorages the product of the product sampling instruments from external block loads in mobile and non mobile use.



#### Typical Applications include:

- · Small electrical engines
- · Electrical pumps

#### TECHNICAL DRAWING

PLATE FIXED INSTRUMENT MOUNT

#### PLATE FIXED INSTRUMENT NOUNT

#### GROWNET STYLE INSTRUMENT NOUNT









## Low Frequency Mountings

The Low Frequency mounts are designed for shear as well as compressive loads. Continual tensile load should be avoided.

These antivibration mounts are designed to give large deflection for small loads and are used to protect suspended equipment against vibration and impact.

#### Typical applications include:

- · Light instruments
- · Light fans and compressors
- · Computer and electronic units
- · Shock mounting for light applications

#### TECHNICAL DRAWING

#### DI RECTIONAL LOADING







## M Mounting

The M-Mounting is ideal for applications involving isolation of low frequency vibration on all planes. Also suitable for shock attenuation due to the designed ability to offer large deflections. Provides passive vibration isolation on electronic instruments, measuring equipment and test cells.

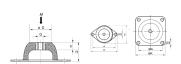
The M mount is specifically designed to give large deflection at low loads. Although the mount design allows high deflection, the mountings are compact in weight and easy to install.

#### The M mounts are a high performance antivibration mount with a number of advantages:

 Tight tolerance on dynamic stiffness rates for accurate vibration calculations

- · Wide load rating options, 3.5-2500 kg
- Corrosion protected to cope with arduous environments on land or marine applications (ISO 2081)

When using M mount together with the height adjuster HA, it is necessary to use a washer. The diameter of the washer must be 20% larger than the diameter of the upper plate (D).





### **Eccentric Bush**

Metaxentric bushes have a large rubber section with the central pin offset towards one radial plane. These bushes can provide a relatively large radial deflection whilst providing excellent motion control characteristics.

#### The bush has the following features:

 Three dissimilar translational stiffnesses for the best vibration isolation and motion control.

- · Load range from 138 464 kg
- Rising rate stiffness characteristics for overload conditions help to limit motion and transmitted acceleration.
- Robust and fail-safe, suitable for ROPS and FOPS cab structures.
- · Simple to fit, the housing lends itself to robust structures.

Metaxentric Bushes are similar to conventional UD Bushes but with inner and outer sleves offset radially. This feature provides a greater rubber thickness and hence increased flexibility in the normal direction of loading, whilst maintaining control in other modes and still allowing torsional movement. The rubber section is relieved to eliminath enarful tensile stresses.

#### Typical Applications Include:

- · Vehicle spring eye mounting
- Tilt Cab pivot bush
- · Engine mounting

#### TECHNICAL DRAWING







## **Conical Mount**

The metacone product range is designed for high load capacit with relatively large static deflections. The high loading for a given size is advantage in shear and compression. Typically the mountings are assemblied with overload and rebound washers to control and limit movement of the suspended equipment under shock loads. Centre fixing bolts should be torque tightened to the ecommended values.

Their compact fail-safe design is available for a wide range of loadings, with in some cases, alternative fixings. Cut-outs in rubber sections on various sizes provide different vertical/horizontal stiffness ratio.

#### Typical Applications Include:

- · Off-highway and road vehicle engines
- · Vehicle cabs
- · Oil tanks/ tankers







#### TECHNICAL DRAWING









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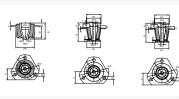
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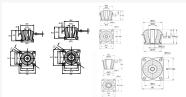


#### TECHNICAL DRAWING





#### TECHNICAL DRAWING



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- · Vehicle cabs
- · Oil tanks/ tankers







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- · Off-highway and road vehicle engines
- · Vehicle cabs
- · Oil tanks/ tankers









## **RA Mounting**

RA mount uses the rubber profile in shear and compression to obtain good vertical flexibility with the advantage of horizontal stability. For normal speeds of approx. 1500 RPM, the RA provides a degree of isolation of 75-85%. For better isolation, the alternative RAEM or M-Series can be chosen.

#### The RA are a high performance mount, with anumber of advantages:

- Rubber features are utilized effectively combining compression and shear wide load rating options, 40-2100 kg
- Corrosion protected to cope with arduous environments on land or marine applications
- Domed shape cover to protect against oil contamination

 Fitted as standard with an integral fail-safe device with resilient stop, making the RA ideal for use in mobile applications

#### Typical Applications Include:

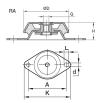
- Pumps
- Fans
- Converters
- Compressors
- · Combustion engines
- · Industrial and Marine gensets
- Generators
- Also suitable for use with presses, punches and other work shop machines





### **RA Mounting**

#### TECHNICAL DRAWING





Working With us never felt better.

## **RAB Mounting**

Similar in design to the RA and RAEM range, the RAB uses rubber in shear and compression for optimum stiffness characteristics and horizontal stability. Especially effective on small 1, 2 and 3 cylinder disest engines where the special compound employed provides effective isolation of vibraiton while eliminating much of the excessive movement normally associated with 1-3 zine plated cylinder engines.

#### The RAB are a high performance mount which have a number of advantages:

- Rubber features are utilized effectively combining compression and shear
- Tight tolerances on dynamic stiffness rate for accurate vibration calculations
- · Loading rating options, 10-130 kg
- Corrosion protected to cope with arduous environments on land or marine applications
- Fitted as standard with an integral fail-safe device with resilient stop, making the RA ideal for use in mobile applications
- Domed shape cover to protect against oil contamination
- The RAB mounts can accommodate occasional vertical shock loads up to 5G and shock loads up to 2G in other directions

#### TECHNICAL DRAWING







#### Typical Applications Include:

- Pumps
- Diesel engines
- Marine and Industrial gensets
- Emergency power packs

## **RAEM Mounting**

The RAEM is a universal mounting for applications demanding MAX.mum vibration isolation. It is a further development of the RA mount, where EM stands for 'extra movement ' and is suitable for both light and heavy machines.

For normal speeds of 1500 RPM the RAEM type provides a degree of isolation of 85-95%, and gives good isolation with low frequency machines.

#### RAEM is a high performance mount, with a number of advantages:

 RAEM offers nominally 70% extra deflection over standard RA mounts

· Wide load rating options, 30-3400 kg

Corrosion protected to cope with arduous
environments on land or marine applications

 Fitted as standard with an integral fail-safe device with resilient stop, making the RA ideal for use in mobile applications

 Domed shape cover to protect against oil contamination

 The RAEM mounts can accommodate occasional vertical shock loads up to 5G and shock loads up to 2G in other directions

#### TECHNICAL DRAWING







#### Typical Applications Include:

- HVAC units
- Marine gensets
- Industrial gensets
- Refiners
- Compressors
- Industrial fans
- Large milling machinery

## **UD Bushes**

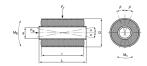
UD bush consists of two concentric sleeves with rubber securely bonded between them. Designed to accommodate torsional movements, axial and radial loads. The rubber is pre-stressed to give maximum dynamic strength and durability.

The bonded rubber takes up full movement. Therefore, lubrication or other bearing maintenance is not required. The bush has excellent sound and vibration isolation characteristics, enabling structures fitted with the sleeves to be silent and vibration free.

For vehicle suspension, pivot arms and all types of mechanical linkage, this mount permits oscillating movement through the deflection of rubber in shear. Suitable to replace roller bearings where small motions are required (up to 20 degrees). Reduces shock loads and noise transmission in structures.

#### Typical Applications Include:

- · Vehicle suspension arms
- · Vibratory feeders
- · Conveyor tracks
- · Mechanical linkages
- · Pivot bearings





### UH

UH is an antivibration mounting designed to accommodate axial static and shock loads in both directions. The dynamic natural frequency is constant irrespective of the static load.

Mounting type UH is particularly suitable for the suspension of both mobile and static cabs as well as platforms on agricultural vehicles. When fitted with overload/rebound washers, a high strength fail-safe installation is provided.



Moreover, it is possible to alter the characteristics of the mounting by providing a dome-shaped washer at the upper rubber section. This will provide impact resistance to deflection beyond the permissible limit. Effectively isolating whateion and noise, the UH mounting also protects tanks and ancillary equipment against metal fatigue caused by chassis distortion.

#### Typical Applications Include:

- Tractors
- Excavators
- · Lifting cranes
- · Forklift trucks
- · Forestry vehicles
- · Off-road equipment

#### TECHNICAL DRAWING





## **Vee-Mounting**

Vee-Kellage have ideal stiffness characteristics for rail vehicle engine suspension. The vertical stiffness rate ensures that when the mounting is properly loaded, the vertical natural frequency does not coincide with the body bending frequency and the high longiturdinal stiffness controls shunting abeck motion. The mounting is usually connected to the solebars via the base casting, and a buffer is attached to the Vee section sating to timit tensile loads.

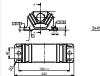
#### Vee-Kelliager has the following features:

 Three dissimilar translational stiffness for the best vibration

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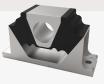
· Strong castings for safety and reliability

A high load capacity mounting with relatively large rubber volume providing a high degree of vibration and noise isolation and makes it ideally suited for suspending engines installed in public service and goods vehicles.











An Evergreen Company

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