VIBRATECH NEW ZEALAND

ANTI VIBRATON MOUNT PRODUCT CATALOGUE

WHAT WE DO

Leverage our expertise to find ideal solutions for controlling vibrations in any machine or apparatus installation. Our team thrives on delivering the best long-term outcomes for our customers by considering all factors relevant to the application. We take pride in providing you with top-notch recommendations or custom parts tailored to your specific requirements.

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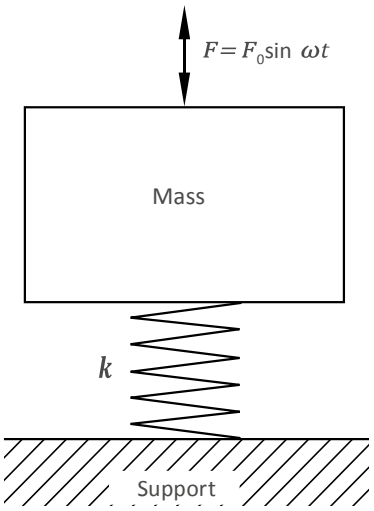
Anti-Vibration Mounts – 'What They Are'

The purpose of an **AV or Anti-Vibration** mounting is to reduce the transmission of excitation forces between a vibrating mass and its foundations or supporting structure. An **AV mounting** acts as a 'Spring' - a device that stores energy & subsequently releases it when the applied force is removed. This released energy can be designed to effectively counteract the imposing forces from an external vibrating motion, thereby reducing the transmitted forces and isolating the vibrating equipment. The key to a successful Anti Vibration mounting is to select the spring so that its speed of response – or 'natural frequency' is out of phase with the excitation – 'forcing frequency' (this is known as the frequency ratio). **AV Industrial Products Ltd's Engineering Rubber** is an extremely effective and highly resilient spring material that can return up to 97% of its stored energy, making it the ideal material for anti-vibration mountings, shock absorbers and rubber springs.

Vibration Engineering – 'How it works'

Natural Frequency (fn)

When a material or a suspended body is excited, it will vibrate freely with a 'natural frequency' or periodicity until it is allowed to come to rest. The 'frequency' and 'Speed' of the oscillations will be directly proportionate to the spring stiffness, the mass and its inertia.



If the mass is freely suspended without any restrictions, it will have 6 modes or directions in which it can oscillate – 3 translational; longitudinal, lateral & vertical and 3 rotational; roll, pitch & yaw (these are known as its 6 degrees of freedom or frequencies).

These frequencies can be 'coupled', which means by exciting the body in one direction it is possible that all other modes of vibration can be excited, which is not ideal. By positioning the **AV mountings** on the principle axis (axis of least resistance) or close to the C of G, decoupling of the frequencies can be achieved. It is therefore important to carry out full analysis of the system to avoid resonance conditions and **AV Industrial Products Ltd's Engineering Department** can carry out this analysis for you.

$$f_n = \frac{1}{2\pi}\sqrt{\frac{K}{M}}$$

f_n = Natural Frequency (Hz)

K = Stiffness (N/m)
M = Mass (Kg)

Forcing Frequency

If a suspended body is continuously excited, such as an IC engine, the body will oscillate at the frequency at which it's being excited at. However, depending on the ratio between the forcing frequency or running speed of the engine and the natural frequency of the **AV mounting system**, (known as the frequency ratio), the forces (i.e. vibration) being transmitted to the support structure can be reduced and isolated. The higher the frequency ratio the greater the isolation.

To ensure that the anti-vibration mountings are providing isolation, the mountings natural frequency must be at least 1.41 times (i.e. √2) lower than the forcing frequency, and in practice the running speed should be 2 or 3 times greater than the natural frequency of the mountings.

Calculating the Vibration Isolation

1. Natural Frequency

$$fn\ (CPM) = \frac{300}{\sqrt{\frac{Mounting\ Deflection\ (mm)}{10}}}$$

2. % Isolation

$$\%\ Isolation = \left[1 - \frac{1}{\left(\frac{Running\ Speed\ (RPM)}{fn\ (CPM)}\right)^2 - 1}\right] x\ 100$$

Resonance

When the natural frequency and the forcing frequency are the same, and therefore the frequency ratio is 1, the direction of the forces will coincide & the system will respond by amplifying the disturbing forces into large oscillations. These destructive forces can cause catastrophic failures of equipment and structures, and must be avoided at all costs. **AV Industrial Products Ltd's Engineering Department** can predict these resonance conditions and help prevent costly breakdowns.

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Harmonic Order

Internal combustion engines and other rotating machinery have a 'Fundamental' or primary 1st order running speed. This could be continuous, single speed (e.g. 1500RPM) or variable speed (e.g. 800RPM-2000RPM). However, the machine may have various 'Harmonics' or 'Orders' of its primary speed, depending of its construction & configuration. The term 'order refers to the integer multiple of the fundamental speed. For example, a 4 Stroke 4 cylinder engine will have 2nd order out-of-balance forces due to the reciprocating masses of the pistons & connecting rods, and also 2nd order alternating torque fluctuations caused by the variation in gas pressures during combustion. Example; Running Speed 1500rpm gives a 2nd order vibration of 3000rpm or 50Hz (i.e. 2 x 1500rpm).

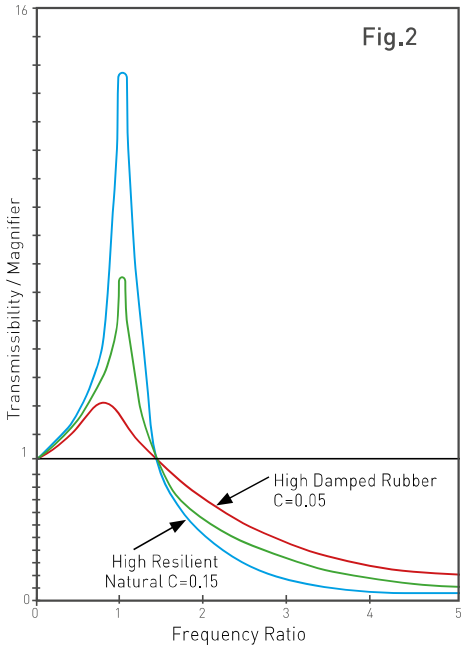
When calculating the isolation efficiency of the anti-vibration mounting, the harmonic orders of the engine should be taken into account, as this will increase the frequency ratio and better isolation will be achieved.

Isolator

A support, usually one of many in a system, with the purpose of reducing the transmission of vibration and shock from its foundation or support structure. Also known as an **AV mounting** or Anti-Vibration mounting.

Damper

This is a device that dissipates energy. In a rubber product the internal Hysteresis or internal molecular friction converts the energy under cyclic deformation into heat. The effect of damping is to increase dynamic stiffness which reduces the frequency ratio and in turn reduced the isolation efficiency of the mounting – see fig 2. That's why the majority of **AV mountings** are manufactured in natural rubber which has a low static (Ks) to dynamic (Kd) stiffness ratio.



However, some damping is useful to control excessive movements when the equipment passes through its resonance frequency during start-up & shut down, and also to control excessive movements when the out-of-balance forces are high such as a single cylinder engine. For certain applications, additional external damping is introduced by way of a viscous damper, where the damping force is proportional to the velocity of the vibrating mass. **AV Hydromounts** give the added benefit of high isolation of transmitted forces, and controlling excessive movement or 'shake' at tick-over and low running speeds.

$$\textit{Transmissibility \% (Undamped)} = \frac{1}{\sqrt{\left(1-\left(\frac{fd}{9.55}\right)^2.\frac{m}{k}\right)^2}} \; x\,100$$

$$\textit{Transmissibility \% (Damped)} = \frac{1}{\sqrt{\left(1-\left(\frac{fd}{9.55}\right)^2.\frac{m}{k}\right)^2+4.C^2.\left(\frac{fd}{9.55}\right).\frac{m}{k}}} \; x\,100$$

m = mass (Kg)
k = stiffness (N/m)
fd = Forcing Frequency (RPM)
C = Damping Factor

Rubber - 'What is it'

Versatility

Rubber has amazing properties which can be suited for many applications. By specifying the correct rubber compound, many years of trouble free service life can be achieved. It is an engineering marvel which has been used by humans for 1,000's of years, and still today, rubber is the material which keeps the world flexible.

- Provide isolation from Vibration, Noise and Shock
- Withstand temperatures from -40°C to +300°C
- Self-extinguishing
- Impermeable to gases
- Elongate to 400% its original length
- Can be repeatedly deformed and will return to its original shape
- Resistant to Fuels, Oils, Acids and other hazardous substances
- Moulded into any shape or form
- Electrically insulating
- Resistant to attack from Ozone and Weathering
- Available in many different colours
- FDA approved for medical and food applications

Rubber Hardness

Hardness is a measure of a materials resistance to indentation. The hardness of Rubber is specified using either the 'Shore A' scale or alternatively 'IRHD' – International Rubber Hardness Degree's. Anti-Vibration mountings are available from soft 30sh rubber upto 75sh hard rubber. The hardness of a mounting is directly related to a mountings stiffness.

Stiffness

Stiffness is a measure of the force required to deflect a mounting by a given deflection, and is commonly measured in Kg/mm. Rubber is an incompressible material, much like a fluid, therefore the 'Free Area' of an **AV mountings** rubber section, known as the shape factor has a considerable influence on the mountings stiffness, in addition to the rubber hardness. The stiffness of a mounting is directly related to its natural frequency.

Creep

Creep is the continuing deformation whilst under static stress and increases with time. However, most of the Creep deformation will take place within the first 48 hours of the load being applied. It is also accelerated with increased temperature.

Compression or 'Permanent' set

When rubber is compressed for a long period of time, it will not fully recover to its original state when the load is removed.

Dynamic Properties

Under repeated cyclic compression of rubber, hysteresis will dissipate some of the energy by converting it into heat. Hysteresis is measured by the difference between the input energy and the energy returned, i.e. the energy loss. Low hysteresis rubber, such as natural rubber provides Low Damping and High Resilience which gives excellent vibration isolation properties. When rubber is subject to cyclic strain, such as vibration, the force required to achieve the same deformation as the static deflection will increase. This increase is known as dynamic stiffness, and the dynamic stiffness is usually 1.1 to 1.4 times higher than the static stiffness for natural rubber, but for some synthetic rubbers this figure can be as high as 8 times.

Rubber Fatigue

Fatigue is defined as 'a change in properties due to load cycling' and it is caused by thermal heat build-up from hysteresis; environmental conditions such as Ozone & Oxygen attack; and mechanical crack propagation, any of which can result in a change in stiffness, Dynamic growth of cracks and Catastrophic failure. Crack initiation can also occur from small surface defects, moulding defects, edge defects at the bonding interface, and from ingredients such as carbon black which do not fully homogenise with the rubber. The flaws can be as small as 25 to 40 microns and there are usually about 100 flaws per 1cc of rubber.

When natural rubber is strained, crystals form at the tip of the crack, which has a self-reinforcing effect, suppressing further growth of the crack; i.e. if the energy / stress at the tip of the crack is constant, growth stops. If however the load is relaxed and then reapplied crack growth commences again. In non-crystallising rubber such as SBR, EPDM & NBR the rate of crack growth is time dependant, and therefore under a constant load the crack will continue to grow with time unlike natural rubber. For low stressed applications such as engine mountings and radiator mountings, non-crystallising rubbers give perfectly good service life and are commonly used in many applications. However, the importance of strain induced crystallising natural rubber and non-relaxing load cycling is the most important failure mechanism for parts with repeat load cycling such as springs. **AV Industrial Products Ltd** have developed 'HFP™', a high fatigue resistance Polyisoprene that accommodates the most demanding dynamically fatigued applications.

Manufacturing Methods - 'How its made'

Metal Preparation

Metal components should be degreased prior to the rubber moulding process to ensure optimum bond strength between the rubber and the metal is achieved, and may be followed by grit blasting or a chemical treatment, such as phosphating, to further improve the bonding conditions.

Bonding

Once achieved by electro brass plating, the rubber bonding process is now achieved by applying a chemical adhesive which can be either a single or a two coat system. The chemical adhesive can be applied by hand brushing, dipping, or spraying (including automated spray booths), depending on manufacturing volumes and complexity of metal components. The physical bond between the rubber and metal takes place during the moulding process, where the heat causes a chemical reaction to occur.

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Vulcanisation 'curing' of the rubber

Vulcanisation, otherwise known as "Curing", is the process of creating Cross Links between the polymers molecules, which result in a stable thermoset material which can maintain its mechanical properties and will recover its shape after loading (i.e elasticity). The process of Vulcanisation is achieved during the moulding stage where the compounded rubber, including its various additives, such as Sulphur, are subjected to pressure and heat. The term vulcanisation is named after the god 'Vulcan'

Compression Moulding

Compression moulding describes the simplest method of manufacturing for rubber components. Rubber blanks are placed in the cavities of the mould, and pressure is applied to the upper and lower half of the mould. At the same time the mould is heated for a predetermined period of time, during which the rubber is 'Cured' or Vulcanised. The main advantage of compression moulding are the lower costs of the mould tools.

Transfer Injection Moulding

Transfer moulding is similar in some aspects to compression moulding, however with added benefits. Rubber blanks are placed into a transfer pot which sits above the cavities of the mould. Pressure is then applied to a plunger, which in turn forces the rubber into the cavities of the mould via means of transfer holes to form the finished part. It is subject to the same heating process to 'Cure' or Vulcanise the rubber and the process times are comparable to Compression moulding. Due to the better mixing or 'amalgamation' of the rubber, better mechanical properties are achieved, making Transfer moulded parts better for flexing & dynamic applications. Tooling costs tend to be more expensive.

Injection Moulding

Injection moulding involves pre-heating and extruding the rubber so that it can be injected directly into the cavities of a closed mould. The pressure and temperature which the rubber is subjected to is much higher than Compression or Transfer moulding and is closely controlled. Advantages of this process are short manufacturing times and higher output, high quality aesthetic finish, and a fully automated manufacturing system. The main disadvantages are the high cost of mould tooling, long tool change over times, and waste material in the injection system, making it unsuitable for low volume production

Rubber Flash & Trimming

During the moulding process the rubber compound flows around the mould and completely fills the cavity, which forms the shape of the finished component. At the same time, a small amount of rubber may also flow between the split lines in the mould tool, and through any spue release holes. This will result in excess rubber, known as flash, on the surface of the finished component. This rubber flash can be removed by Hand Trimming, Tumbling or Cryogenic Deflashing, to improve the aesthetics of the finished product.

Protective Finishes

It is important that exposed metal parts, particularly when using Carbon Steel, have a protective finish that will protect from the environment and inhibit rust. Untreated metals can result in 'Underbond Corrosion' which will result in reduced bond strength. Common protective finishes include Zinc Plating, Phosphate, Black Etch Primer and Light Oil Coatings.

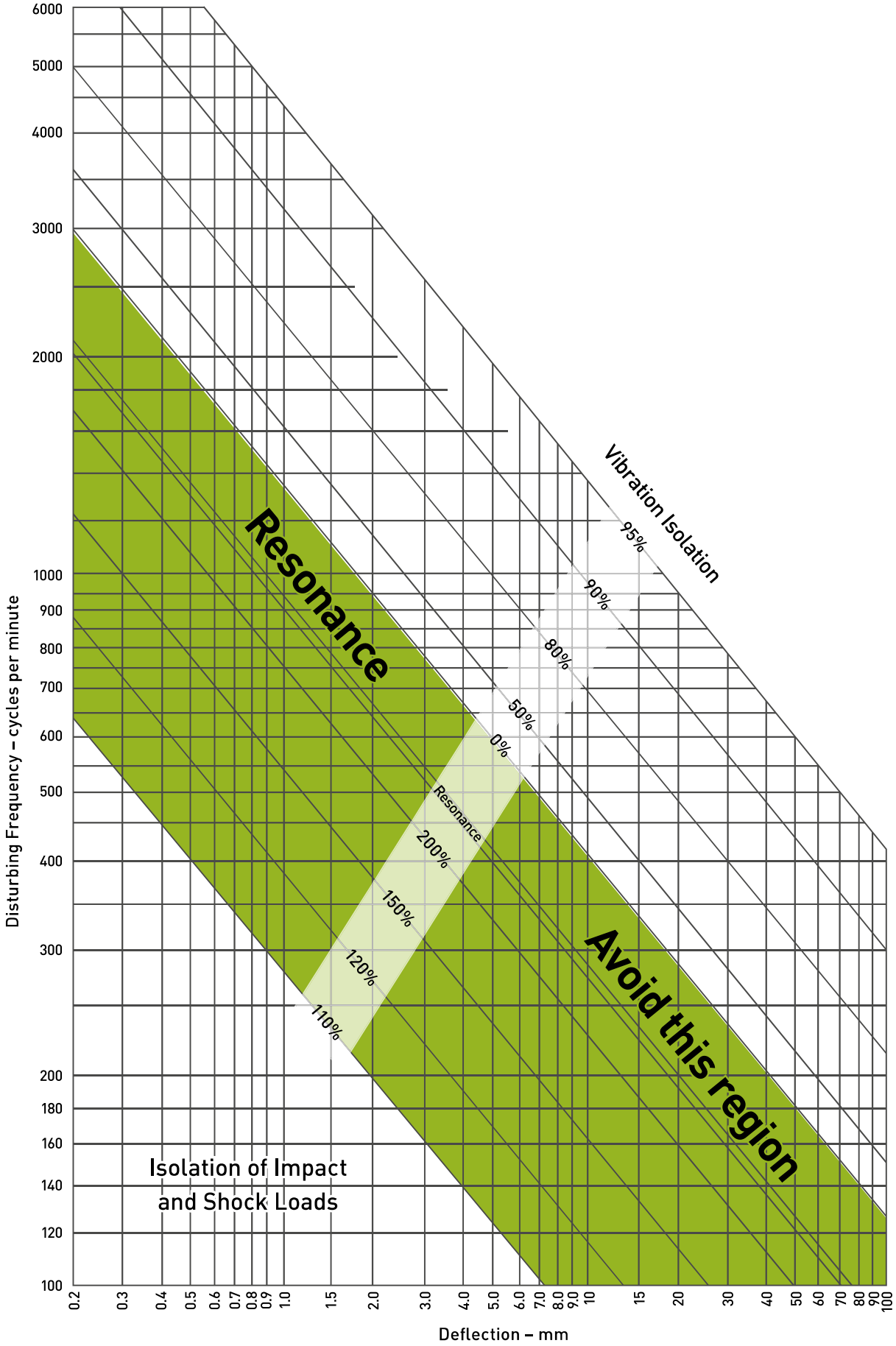
Inspection & Quality Control

As an ISO9001 accredited company, our philosophy since 1992 has been to provide High Quality engineering components which fully meet specification and achieve the customer's price targets.

Our wealth of experience in the industry, both in the field of Vibration Engineering and Rubber Engineering, allows us to select materials and manufacturing techniques which are best suited for the application in which the product will be used, ensuring our products meet the required specifications at the very best possible prices.

Using state of the art testing equipment, our finished components are carefully inspected during the quality control process using a variety of techniques to ensure they meet the required standards. Our Testing and Inspection facilities includes both destructive and non-destructive techniques to ensure the correct mechanical properties are achieved, including Bond Strength and Stiffness characteristics.

Isolation Chart



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Simple 6 Step Guide to Mounting Selection:

1. Determine the total weight of the equipment & number of mountings required
2. Calculate the weight on each mounting (Consider that weight may not be evenly distributed)
3. Determine the running speed (or forcing frequency) of the equipment.
4. Determine the static deflection of the mounting from the chart below (Generally 70% Isolation is acceptable for most applications)

STATIC MOUNTING DEFLECTION REQUIRED TO ACHIEVE ISOLATION

RUNNING SPEED (RPM)	% VERTICAL ISOLATION REQUIRED		
	70%	80%	90%
1000	4.0mm	5.4mm	10.0mm
1500	1.8mm	2.5mm	4.5mm
3000	0.5mm	0.7mm	1.2mm

5. Based on the load per mounting, select a suitable mounting type to give the required static deflection, taking into account the specific application requirements, such as whether the equipment is Mobile or Static.
6. Ensure that all connections & services to the equipment, such as exhausts, pipework and ducting are flexible in order to allow the equipment to move freely

In addition, other factors that should be taken into account, such as:

- Contamination with Oil, Fuel, Chemicals & extreme Temperatures
- Corrosive Environments – Off Shore Rigs, High Humidity.
- High G forces – Off-Road Vehicles, Construction Plant, Military
- Shock Protection – to protect fragile equipment from drops & impacts.
- Foundation should be Level & Flat. Extra care is required for Suspended Floors
- Suspension Springs to accommodate movement. I.e. Vibratory rollers, compactors, screens
- Low Speed Equipment – Fans, Chillers, Blowers & Air-Conditioning Units.
- Trunion Bushes & Suspension Bushes – Angular & Torsional Movements
- Human Vibration – i.e. ISO 2631
- Mechanical Vibrations – i.e. ISO7919 & ISO10816

We offer a full technical & engineering back up service. If you would like help in selecting suitable mountings for your application, please contact our technical department for assistance.

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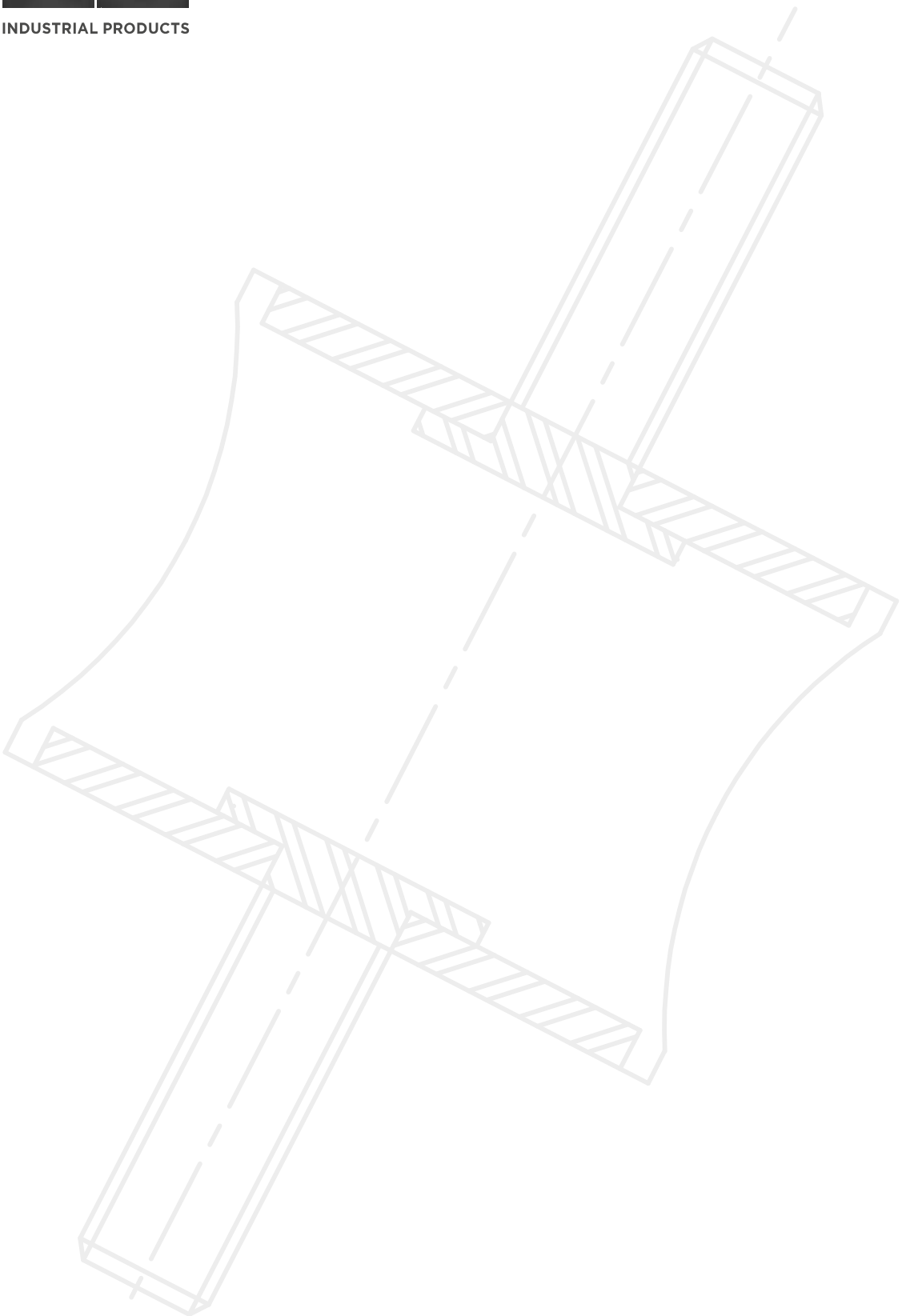
Notes



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Standard Mountings

Cylindrical Mountings

Buffers and Bump Stops

Bobbin Mounts

Bobbin Mounts are a low cost solution to reducing vibration and shock. They can be used in either Compression or Shear or a combination, and are available with various thread configurations.

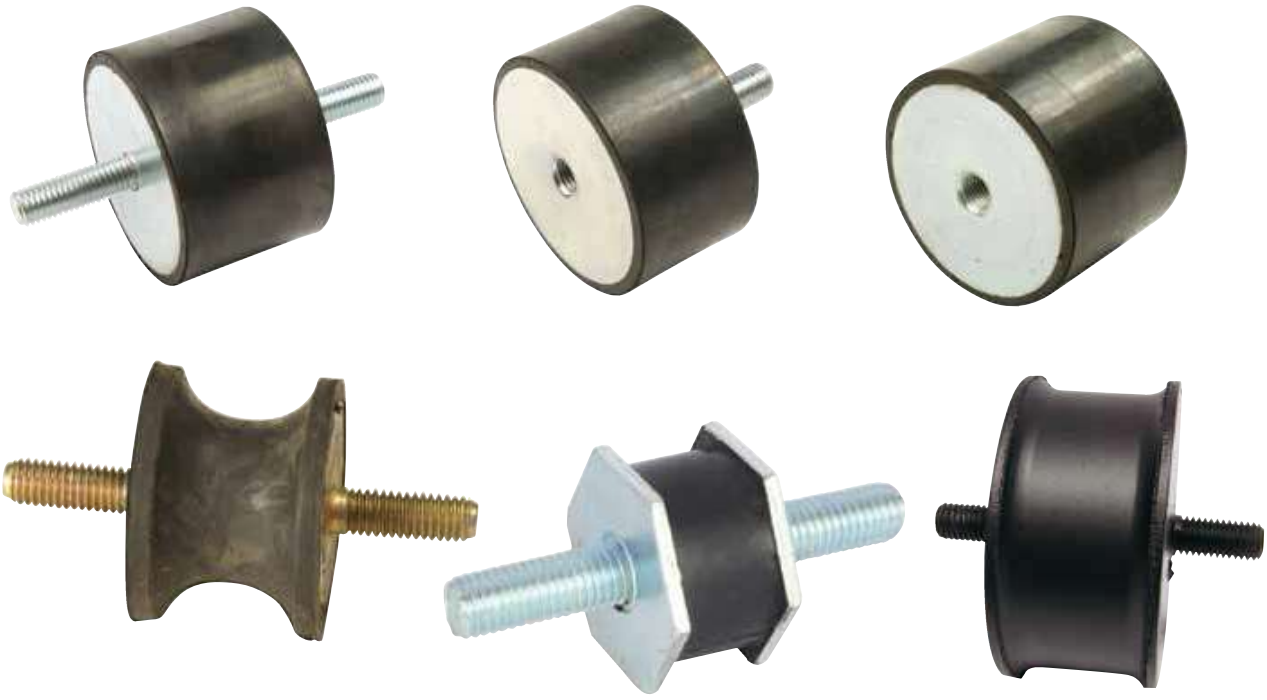
Advantages:

- Load Range from 1Kg to 2000Kg per mounting
- Zinc Plated Corrosion Resistant metals (RoHS Compliant)
- Ease of Installation
- Excellent Levels of Vibration Absorption
- Low Cost

Additional Sizes, Stainless Steel metals and Oil, Fuel & Heat Resistant rubbers available on request.

Applications:

- Combustion Engines
- General Industrial Machinery
- Generating Sets
- Construction and Agricultural Equipment
- Instruments
- Transit Cases and Shock Packaging



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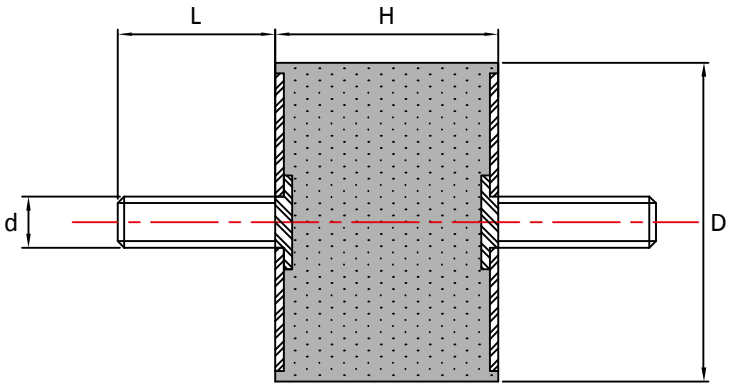
Male Male Bobbins

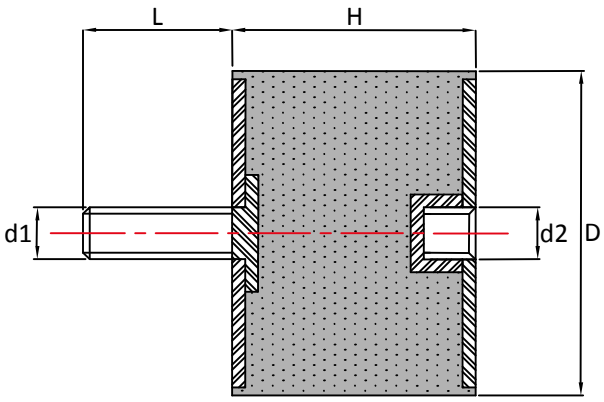


Part No	D x H	d x L	45° Shore A	60° Shore A	70° Shore A	mm
0808MM06	08 x 08	M3 x 06	1.8	3.3	4.5	0.6
1008MM10	10 x 08	M4 x 10	2.3	4.3	6.0	0.6
1010MM10	10 x 10	M4 x 10	2.0	3.4	5.5	0.8
1111MM10	11 x 11	M4 x 10	2.1	4.5	6.0	0.5
1508MM10	15 x 08	M4 x 10	7.7	14.1	19.5	0.6
1510MM10	15 x 10	M4 x 10	7	14	18.5	0.8
1515MM13	15 x 15	M4 x 13	5.8	10.7	15.0	1.3
1515MM15	15 x 15	M5 x 15	5.8	10.7	15.0	1.3
1515MM12	15 x 15	M6 x 12	5.8	10.7	15.0	1.3
1525MM10	15 x 25	M4 x 10	2.3	5.8	7.1	2.0
2008MM18	20 x 08	M6 x 18	16.6	31.0	42.0	0.8
2015MM18	20 x 15	M6 x 18	9.0	17.0	23.0	1.2
2020MM18	20 x 20	M6 x 18	7.0	13.0	18.0	1.6
2025MM18	20 x 25	M6 x 18	6.7	12.0	17.0	2.2
2030MM18	20 x 30	M6 x 18	5.3	9.6	13.5	2.6
2510MM18	25 x 10	M6 x 18	25.0	48.0	66.0	0.7
2515MM18	25 x 15	M6 x 18	18.0	34.0	48.0	1.2
2520MM18	25 x 20	M6 x 18	16.0	29.0	39.0	1.6
2520MM20	25 x 20	M8 x 20	16.0	29.0	39.0	1.6
2522MM20	25 x 22	M8 x 20	14.4	27.0	36.0	1.8
2525MM18	25 x 25	M6 x 18	12.4	23.0	32.0	2.1
2530MM18	25 x 30	M6 x 18	11.5	22.0	29.0	2.7
2530MM20	25 x 30	M8 x 20	11.5	22.0	29.0	2.7
3015MM20	30 x 15	M8 x 20	22.0	41.0	57.0	1.1
3020MM15	30 x 20	M8 x 15	20.0	38.0	51.0	1.6
3020MM20	30 x 20	M8 x 20	20.0	38.0	51.0	1.6
3022MM20	30 x 22	M8 x 20	19.0	34.0	47.0	1.8
3025MM20	30 x 25	M8 x 20	17.0	29.0	40.0	2.1
3030MM20	30 x 30	M8 x 20	15.0	28.0	38.0	2.6
3040MM20	30 x 40	M8 x 20	14.0	27.0	36.0	3.6
4020MM23	40 x 20	M8 x 23	41.0	77.0	106.0	1.6
4020MM25	40 x 20	M10 x 25	41.0	77.0	106.0	1.6
4025MM25	40 x 25	M10 x 25	38.0	71.0	97.0	2.1
4028MM25	40 x 28	M10 x 25	35.0	65.0	89.0	2.4
4030MM23	40 x 30	M8 x 23	33.0	62.0	87.0	2.6
4030MM25	40 x 30	M10 x 25	33.0	62.0	87.0	2.6
4035MM23	40 x 35	M8 x 23	30.0	56.0	78.0	3.1
4035MM25	40 x 35	M10 x 25	30.0	56.0	78.0	3.1
4040MM23	40 x 40	M8 x 23	29.0	54.0	74.0	3.6
4040MM25	40 x 40	M10 x 25	29.0	54.0	74.0	3.6
4045MM25	40 x 45	M10 x 25	28.0	52.0	73.0	4.1
5020MM28	50 x 20	M10 x 28	85.0	159.0	219.0	1.5

Part No	D x H	d x L	45° Shore A	60° Shore A	70° Shore A	mm
5025MM25	50 x 25	M10 x 25	79.0	147.0	203.0	2.0
5030MM23	50 x 30	M8 x 23	68.0	125.0	173.0	2.5
5030MM28	50 x 30	M10 x 28	68.0	125.0	173.0	2.5
5035MM25	50 x 35	M10 x 25	59.0	110.0	151.0	3.0
5040MM25	50 x 40	M10 x 25	49.0	91.0	126.0	3.5
5040MM28	50 x 40	M10 x 28	49.0	91.0	126.0	3.5
5045MM25	50 x 45	M10 x 25	44.0	82.0	114.0	4.0
5050MM25	50 x 50	M10 x 25	40.0	76.0	104.0	4.5
6025MM25	60 x 25	M10 x 25	122.0	227.0	314.0	2.0
6030MM25	60 x 30	M10 x 25	108.0	200.0	276.0	2.5
6035MM25	60 x 35	M10 x 25	106.0	197.0	272.0	3.1
6035MM37	60 x 35	M12 x 37	106.0	197.0	272.0	3.1
6040MM25	60 x 40	M10 x 25	98.0	183.0	249.0	3.5
6040MM37	60 x 40	M12 x 37	98.0	183.0	249.0	3.5
6045MM25	60 x 45	M10 x 25	89.0	166.0	230.0	4.0
6045MM37	60 x 45	M12 x 37	89.0	166.0	230.0	4.0
6050MM37	60 x 50	M12 x 37	80.0	149.0	205.0	4.5
6535MM25	65 x 35	M10 x 25	129.0	240.0	332.0	3.0
7030MM25	70 x 30	M10 x 25	170.0	317.0	432.0	2.4
7030MM37	70 x 30	M12 x 37	170.0	317.0	432.0	2.4
7035MM25	70 x 35	M10 x 25	150.0	298.0	411.0	2.9
7035MM37	70 x 35	M12 x 37	150.0	298.0	411.0	2.9
7040MM25	70 x 40	M10 x 25	139.0	258.0	357.0	3.4
7040MM37	70 x 40	M12 x 37	139.0	258.0	357.0	3.4
7045MM25	70 x 45	M10 x 25	125.0	232.0	312.0	3.9
7045MM37	70 x 45	M12 x 37	125.0	232.0	312.0	3.9
7050MM25	70 x 50	M10 x 25	114.0	211.0	292.0	4.4
7050MM37	70 x 50	M12 x 37	114.0	211.0	292.0	4.4
7525MM37	75 x 25	M12 x 37	221.0	420.0	577.0	1.9
7535MM37	75 x 35	M12 x 37	170.0	340.0	470.0	2.9
7540MM37	75 x 40	M12 x 37	150.0	280.0	386.0	3.4
7550MM37	75 x 50	M12 x 37	143.0	268.0	370.0	4.4
7555MM37	75 x 55	M12 x 37	125.0	235.0	324.0	4.9
8030MM35	80 x 30	M14 x 35	270.0	512.0	704.0	2.4
10030MM44	100 x 30	M16 x 44	460.0	880.0	1210.0	2.2
10040MM44	100 x 40	M16 x 44	370.0	670.0	925.0	3.2
10050MM44	100 x 50	M16 x 44	290.0	525.0	725.0	4.2
10055MM44	100 x 55	M16 x 44	270.0	500.0	690.0	4.7
10060MM44	100 x 60	M16 x 44	260.0	470.0	650.0	5.2
10075MM44	100 x 75	M16 x 44	215.0	380.0	525.0	6.7
100100MM44	100 x 100	M16 x 44	165.0	295.0	410.0	9.2
15075MM44	150 x 75	M16 x 44	650.0	1196.0	1651.0	6.7

Max compression load in Kg deflection in mm.

Male Female Bobbins



Part No	D x H	d1 x L	d2	45° Shore A	60° Shore A	70° Shore A	mm
1008MF10	10 x 08	M4 x 10	M4	2.4	4.4	6.2	0.6
1010MF06	10 x 10	M4 x 06	M4	2.1	4.0	5.5	0.8
1513MF10	15 x 13	M4 x 10	M4	4.0	7.8	10.8	1.1
1515MF10	15 x 15	M4 x 10	M4	6.0	11.0	15.4	1.3
2015MF18	20 x 15	M6 x 18	M6	9.3	17.5	24.0	1.2
2020MF18	20 x 20	M6 x 18	M6	7.2	13.4	18.5	1.6
2025MF18	20 x 25	M6 x 18	M6	6	12	17.5	2.1
2030MF18	20 x 30	M6 x 18	M6	5.5	9.9	13.9	2.6
2515MF18	25 x 15	M6 x 18	M6	18.5	35.0	49.0	1.2
2520MF20	25 x 20	M8 x 20	M8	16.5	30.0	40.0	1.6
2525MF18	25x 25	M6 x 18	M6	12.8	24.0	33.0	2.1
2530MF20	25 x 30	M8 x 20	M8	11.8	23.0	30.0	2.7
3015MF20	30 x 15	M8 x 20	M8	23.0	42.0	59.0	1.1
3020MF20	30 x 20	M8 x 20	M8	21.0	39.0	53.0	1.6
3025MF20	30 x 25	M8 x 20	M8	17.5	30.0	41.0	2.1
3030MF20	30 x 30	M8 x 20	M8	15.5	29.0	39.0	2.6
3040MF20	30 x 40	M8 x 20	M8	14.5	28.0	37.0	3.6
4020MF23	40 x 20	M8 x 23	M8	42.0	79.0	109.0	1.6
4020MF25	40 x 20	M10 x 25	M10	42.0	79.0	109.0	1.6
4025MF20	40 x 25	M8 x 20	M8	39.0	73.0	100.0	2.1
4030MF23	40 x 30	M8 x 23	M8	34.0	64.0	89.0	2.6
4030MF25	40 x 30	M10 x 25	M10	34.0	64.0	89.0	2.6
4035MF23	40 x 35	M8 x 23	M8	31.0	57.0	80.0	3.1
4035MF25	40 x35	M10 x 25	M10	31.0	57.0	80.0	3.1
4040MF20	40 x 40	M8 x 20	M8	30.0	55.0	76.0	3.6
4040MF25	40 x 40	M10 x 25	M10	30.0	55.0	76.0	3.6
5020MF28	50 x 20	M10 x 28	M10	87.0	164.0	226.0	1.5
5025MF25	50 x 25	M10 x 25	M10	81.0	151.0	209.0	2.0
5030MF25	50 x 30	M10 x 25	M10	70.0	129.0	178.0	2.5
5035MF25	50 x 35	M10 x 25	M10	61.0	113.0	156.0	3.0
5040MF25	50 x 40	M10 x 25	M10	50.0	94.0	130.0	3.5

Part No	D x H	d1 x L	d2	45° Shore A	60° Shore A	70° Shore A	mm
5045MF28	50 x 45	M10 x 28	M10	45.0	84.0	117.0	4.0
5050MF25	50 x 50	M10 x 25	M10	41.0	78.0	107.0	4.5
6025MF25	60 x 25	M10 x 25	M10	126.0	234.0	323.0	2.0
6030MF25	60 x 30	M10 x 25	M10	111.0	206.0	284.0	2.5
6036MF25	60 x 36	M10 x 25	M10	109.0	203.0	280.0	3.1
6036MF37	60 x 36	M12 x 37	M12	109.0	203.0	280.0	3.1
6040MF25	60 x 40	M10 x 25	M10	101.0	188.0	256.0	3.5
6040MF37	60 x 40	M12 x 37	M12	101.0	188.0	256.0	3.5
6045MF25	60 x 45	M10 x 25	M10	92.0	171.0	237.0	4.0
6535MF25	65 x 35	M10 x 25	M10	133.0	247.0	342.0	3.0
6540MF37	65 x 40	M12 x 37	M12	118.0	216.0	298.0	3.5
6545MF37	65 x 45	M12 x 37	M12	103.0	190.0	264.0	4.0
6550MF37	65 x 50	M12 x 37	M12	88.0	163.0	226.0	4.5
7030MF37	70 x 30	M12 x 37	M12	175.0	326.0	445.0	2.4
7040MF25	70 x 40	M10 x 25	M10	143.0	266.0	367.0	3.4
7040MF37	70 x 40	M12 x 37	M12	143.0	266.0	367.0	3.4
7045MF25	70 x 45	M10 x 25	M10	129.0	239.0	321.0	3.9
7045MF37	70 x 45	M12 x 37	M12	129.0	239.0	321.0	3.9
7050MF37	70 x 50	M12 x 37	M12	117.0	217.0	300.0	4.4
7060MF37	70 x 60	M12 x 37	M12	116.0	214.0	296.0	5.4
7525MF37	75 x 25	M12 x 37	M12	221.0	420.0	577.0	1.9
7540MF37	75 x 40	M12 x 37	M12	154.0	288.0	397.0	3.4
7550MF37	75 x 50	M12 x 37	M12	147.0	276.0	381.0	4.4
7555MF37	75 x 55	M12 x 37	M12	128.0	242.0	333.0	4.9
10050MF44	100 x 50	M16 x 44	M16	300.0	540.0	750.0	4.2
10055MF44	100 x 55	M16 x 44	M16	275.0	515.0	710.0	4.7
10060MF44	100 x 60	M16 x 44	M16	265.0	480.0	670.0	5.2
10075MF44	100 x 75	M16 x 44	M16	220.0	390.0	540.0	6.7
100100MF44	100 x 100	M16 x 44	M16	170.0	300.0	420.0	9.2
12555MF44	125 x 55	M16 x 44	M16	400.0	800.0	1150.0	4.7
15055MF41	150 x 55	M16 x 41	M16	505.0	920.0	1296.0	4.7
15075MF44	150 x 75	M16 x 44	M16	400.0	720.0	1000.0	6.7

Max compression load in Kg deflection in mm.

This information is for guidance only. Customers are recommended to contact us for further technical information on products and applications.
We reserve the right to alter specifications or withdraw products without notice.

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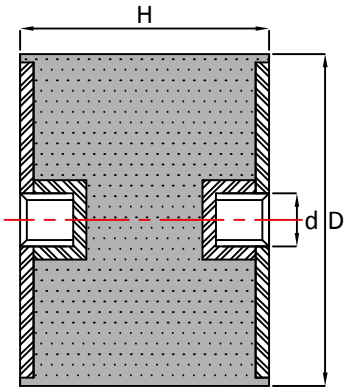
Female Female Bobbins



Part No	D x H	d	45° Shore A	60° Shore A	70° Shore A	mm
1515FF04	15 x 15	M4	6.1	11.2	15.8	1.3
2015FF06	20 x 15	M6	7.9	14.8	20.5	1.0
2020FF06	20 x 20	M6	7.4	13.7	18.9	1.6
2025FF06	20 x 25	M6	7.0	12.6	17.8	2.2
2030FF06	20 x 30	M6	5.6	10.0	14.1	2.6
2515FF06	25 x 15	M6	15.7	30.0	42.0	1.0
2520FF06	25 x 20	M6	16.8	31.0	41.0	1.6
2525FF06	25 x 25	M6	13.0	25.0	34.0	2.1
2525FF08	25 x 25	M8	13.0	25.0	34.0	2.1
2530FF08	25 x 30	M8	10.4	20.7	30.4	2.6
3020FF08	30 x 20	M8	15.7	30.0	40.0	1.2
3025FF08	30 x 25	M8	18.0	31.0	42.0	2.1
3030FF08	30 x 30	M8	15.8	30.0	40.0	2.6
3035FF08	30 x 35	M8	15.0	29.0	39.0	3.1
3040FF08	30 x 40	M8	14.7	29.0	38.0	3.6
4020FF08	40 x 20	M8	32.0	61.0	88.0	1.2
4030FF08	40 x 30	M8	35.0	65.0	91.0	2.6
4030FF10	40 x 30	M10	35.0	65.0	91.0	2.6
4035FF08	40 x 35	M8	27.0	54.0	79.0	2.5
4035FF10	40 x 35	M10	27.0	54.0	79.0	2.5
4040FF08	40 x 40	M8	31.0	57.0	78.0	3.6
4040FF10	40 x 40	M10	31.0	57.0	78.0	3.6
4045FF10	40 x 45	M10	30.0	56.0	77.0	4.1
5025FF10	50 x 25	M10	76.0	140.0	193.0	2.1
5030FF10	50 x 30	M10	71.0	131.0	180.0	2.5
5035FF10	50 x 35	M10	62.0	115.0	158.0	3.0
5040FF10	50 x 40	M10	51.0	95.0	132.0	3.5
5045FF08	50 x 45	M8	46.0	86.0	120.0	4.0
5045FF10	50 x 45	M10	46.0	86.0	120.0	4.0
5050FF10	50 x 50	M10	42.0	86.0	109.0	4.5
5060FF10	50 x 60	M10	38.0	80.0	105.0	5.4
6035FF12	60 x 35	M12	111.0	260.0	285.0	3.1

Part No	D x H	d	45° Shore A	60° Shore A	70° Shore A	mm
6040FF10	60 x 40	M10	103.0	192.0	261.0	3.5
6040FF12	60 x 40	M12	103.0	192.0	261.0	3.5
6045FF10	60 x 45	M10	93.0	174.0	241.0	4.0
6045FF12	60 x 45	M12	93.0	174.0	241.0	4.0
6050FF12	60 x 50	M12	84.0	156.0	215.0	4.5
6535FF12	65 x 35	M12	135.0	252.0	348.0	3.0
7030FF10	70 x 30	M10	178.0	330.0	450.0	2.4
7035FF10	70 x 35	M10	157.0	312.0	430.0	2.9
7035FF12	70 x 35	M12	157.0	312.0	430.0	2.9
7040FF10	70 x 40	M10	145.0	270.0	375.0	3.4
7045FF10	70 x 45	M10	130.0	240.0	327.0	3.9
7045FF12	70 x 45	M12	130.0	240.0	327.0	3.9
7050FF10	70 x 50	M10	120.0	220.0	305.0	4.4
7050FF12	70 x 50	M12	120.0	220.0	305.0	4.4
7060FF12	70 x 60	M12	118.0	218.0	300.0	5.4
7070FF10	70 x 70	M10	113.0	210.0	290.0	6.4
7540FF12	75 x 40	M12	157.0	290.0	400.0	3.4
7545FF12	75 x 45	M12	155.0	285.0	392.0	3.9
7550FF12	75 x 50	M12	150.0	280.0	390.0	4.4
7555FF12	75 x 55	M12	130.0	245.0	340.0	4.9
7560FF12	75 x 60	M12	115.0	190.0	300.0	5.2
9575FF12	95 x 75	M12	225.0	450.0	661.5	6.7
9575FF16	95 x 75	M16	225.0	450.0	661.5	6.7
10040FF16	100 x 40	M16	390.0	700.0	970.0	3.2
10045FF16	100 x 45	M16	345.0	625.0	865.0	3.7
10050FF16	100 x 50	M16	305.0	550.0	760.0	4.2
10055FF16	100 x 55	M16	280.0	520.0	720.0	4.7
10060FF16	100 x 60	M16	270.0	490.0	680.0	5.2
100100FF16	100 x 100	M16	175.0	305.0	430.0	9.2
10575FF16	105 x 75	M16	325	650	955.5	6.7
12075FF16	120 x 75	M16	390	780	1146.6	6.7
15075FF20	150 x 75	M20	405.0	725.0	1010.0	6.7

Max compression load in Kg deflection in mm.

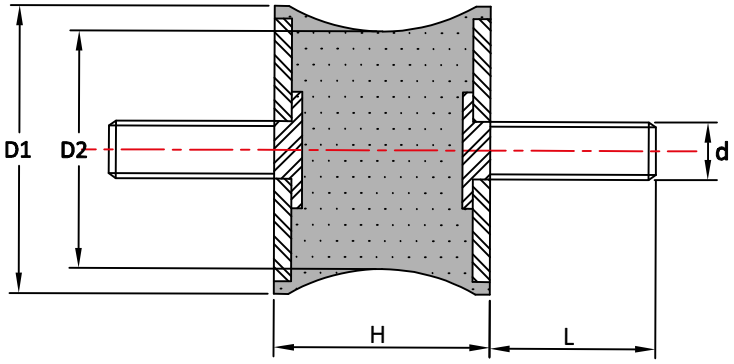
Waisted Bobbins

Waisted bobbin mountings are ideal for applications where the predominant force or vibration is in the lateral direction. By design, the waisted bobbins provide a low shear stiffness which provides more deflection and an increased level of vibration reduction in the lateral direction.

Applications include:

Lightweight Equipment; Vibratory Feeders; Electric Motors; Control Panels; Measuring Apparatus

Also available in Male Female and Female Female stud configurations.



Part No	D1	D2	H	d	L
1008WMM06	10	4.5	8	M3	6
1010WMM10	10	8	10	M4	10
1214WMM10	12	7	14	M4	10
15/8.5/15WMM10	15	8.5	15	M4	10
15/12/15WMM10	15	12	15	M4	10
15/12/15WMM12	15	12	15	M6	12
2015WMM10	20	14	15	M4	10
2019WMM18	20	14	19	M6	18
20/12/30WMM18	20	12	30	M6	18
20/14/30WMM10	20	14	30	M4	10
25/17/20WMM18	25	17	20	M6	18
25/18/20WMM23	25	18	20	M8	23
30/22/20WMM23	30	22	20	M8	23
30/24/25WMM20	30	24	25	M8	20
30/25/20WMM23	30	25	20	M8	23
3025WMM15	30	18	25	M6	15
3041WMM20	30	20	41	M8	20
WMM1380	35	24	34	M8	20
40/25/30WMM23	40	25	30	M8	23
40/33/30WMM23	40	33	30	M8	23
4048WMM23	40	20	48	M8	23
4625WMM28	46	40	25	M10	28
5030WMM28	50	42	30	M10	28
WMM2312	54	42	36	M10	25
5545WMM28	55	44	45	M8	28
57/25/44WMM28	57	25	44	M10	28
57/44/45WMM28	57	44	45	M10	28
57/25/45WMM20	57	25	45	M8	20
60/34/44WMM20	60	34	44	M8	20
6060WMM28	60	49	60	M10	28
7053WMM28	70	45	53	M12	28
9575WMM41	95	80	75	M16	41
180/148/75WMM34	180	148	75	M20	34
180/150/75WMM45	180	150	75	M20	45

Max compression load in Kg deflection in mm.

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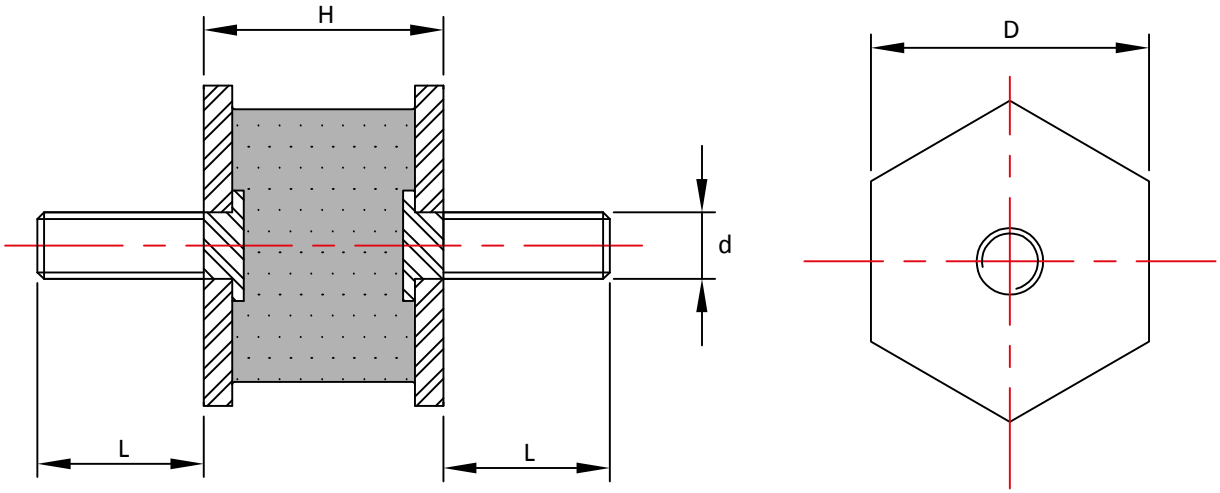
Hexagon Bobbins

Hexagon Bobbin Mounts are manufactured with hexagonal end metals to allow the fitter to grip the mounting with a spanner to avoid twisting of the rubber during installation.

Mountings can be used in Compression, Shear or a combination of both and can accommodate compression loads from 4kg to 110kg per mounting.

Applications include:

Control Panels; Industrial Equipment; Radiators; Exhaust Systems and General purpose machinery.



Part No	D	H	d	L	Compression Load		Shear Load	
					Kg	mm	Kg	mm
HEX1382/45	16	16	M6	12	4.0	1.0	3	3.8
HEX1382/60	16	16	M6	12	8.0	1.0	3.2	1.8
HEX1383/45	21	19	M8	20	8.0	1.2	7.0	6.5
HEX1383/60	21	19	M8	20	16.0	1.2	6.5	2.7
HEX1384/45	32	26	M8	16	16.0	2.0	10.0	7.0
HEX1384/60	32	26	M8	16	31.0	2.0	11.0	3.5
HEX1385/45	33	22	M10	25	29.0	1.5	13.0	4.5
HEX1385/60	33	22	M10	25	57.0	1.5	14.0	2.5
HEX1386/45	43	25	M12	30	58.0	1.7	28.0	6.0
HEX1386/60	43	25	M12	30	110.0	1.7	30.0	3.0

HEX200/60	32	23	M8	18	36.0	1.5	13.0	3.5

Max compression load in Kg deflection in mm.

Profiled Bobbins

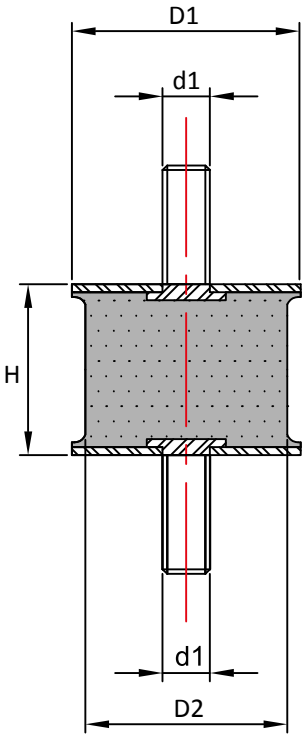
Profiled Bobbin Mounts are ideal for applications where high dynamic forces are applied, particularly when being used in Shear or Shear Compression. The oversized end metals allow for an improved bonded interface between the rubber and metal, increasing the fatigue life when the parts are used for high dynamic applications.

Advantages

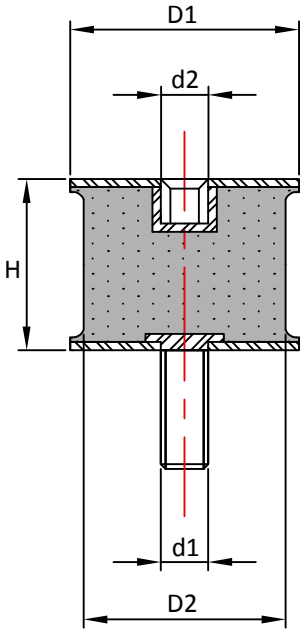
- Improved Fatigue Life
- Ideal for High Dynamic Applications
- Ease of Installation
- Corrosion Resistant Zinc Plated Metals

Applications

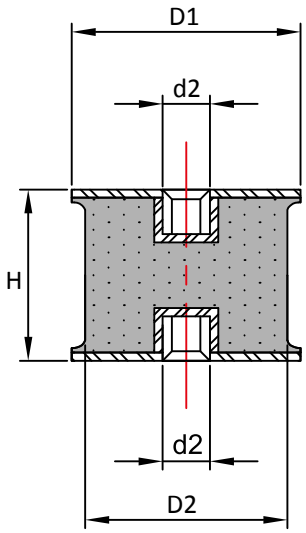
- Vibratory Rollers and Compactors
- Sieves and Grading Equipment
- Industrial Machinery
- General Construction Equipment



Type 1 - Male Male



Type 2 - Male Female



Type 3 - Female Female

Part No	D1	D2	H	Type 1		Type 2		Type 3		Maximum Compression Load (kg)		
				d1	d1	d1	d2	d2	d2	45° Shore A	60° Shore A	70° Shore A
PR262222	26	22	22	M8x10	M8x18	M8x18	M8	M8	M8	7	13	18
PR403528	40	35	28	M10x16	M10x20	M10x20	M10	M10	M10	20	40	62
PR464025	46	40	25	M10x28	M10x28	M10x28	M10	M10	M10	38	71	97
PR757040	75	70	40	M12x37	M12x37	M12x37	M12	M12	M12	139	258	357
PR1009555	100	95	55	M16x41	M16x41	M16x41	M16	M16	M16	270	500	690
PR1009575	100	95	75	M16x45	M16x45	M16x45	M16	M16	M16	215	380	525

Max compression load in Kg deflection in mm.

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Buffers and Bump Stops

Buffers and Bump Stops provide a low cost solution for absorbing Shock and Vibration. They are easy to install, and typically used to reduce the force of an impact from a secondary object. Alternatively they can be used as an elastic element, where the rubber remains in direct contact with a surface.

They are manufactured from 1st Grade Natural Rubber which can accommodate high deformation and high stresses. On request, they are also available in High Damped Rubber.

Advantages:

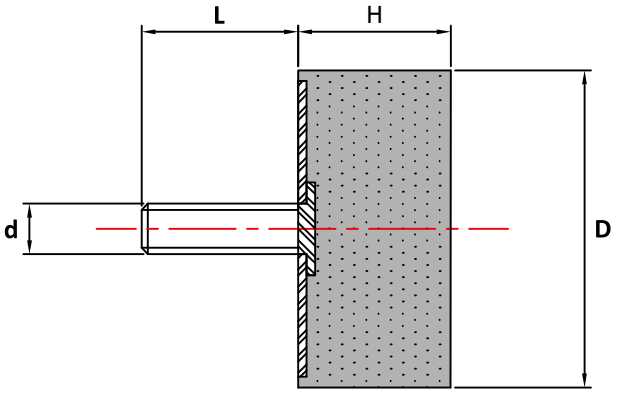
- Absorb Impact Shock Forces
- Reduce Shock induced Stress on Fabrications
- Eliminate Metal to Metal Contact
- Provide Overload Protection
- Additional Sizes, Stainless Steel metals and Oil, Fuel & Heat Resistant rubbers available on request.

Buffers and Bumps Stops are available in various configurations, including: Flat Buffers; Conical Buffers and Plate Buffers.

Applications:

- Construction Equipment
- General Industrial machinery
- Agricultural Machinery and Equipment
- Commercial Vehicle
- Lifts and Elevators

Male Flat Buffer



Part No	D x H	d x L	45° Shore A	60° Shore A	70° Shore A	mm
0808MFB06	08 x 08	M3 x 06	7.5	10.5	15.0	2.0
1008MFB10	10 x 08	M4 x 10	9.5	14.0	19.5	2.0
1508MFB10	15 x 08	M4 x 10	31.0	45.5	63.0	2.0
1513MFB10	15 x 13	M4 x 10	14.5	22.5	31.0	3.3
1618MFB10	16 x 18	M4 x 10	16.0	23.5	33.0	5.0
2008MFB18	20 x 08	M6 x 18	46.5	68.0	94.0	2.0
2012MFB18	20 x 12	M6 x 18	40.0	59.5	82.0	3.0
2015MFB18	20 x 15	M6 x 18	34.0	51.5	71.0	3.75
2020MFB18	20 x 20	M6 x 18	26.0	39.0	53.5	5.0
2025MFB18	20 x 25	M6 x 18	27.0	41.0	56.5	6.25
2030MFB18	20 x 30	M6 x 18	21.5	31.0	43.5	7.5
2508MFB18	25 x 08	M6 x 18	114.0	190.0	231.0	2.0
2510MFB20	25 x 10	M8 x 20	106.5	155.0	213.5	2.5
2515MFB18	25 x 15	M6 x 18	68.0	104.0	145.5	3.75
2518MFB18	25 x 18	M6 x 18	69.5	102.0	141.0	4.25
2520MFB18	25 x 20	M6 x 18	63.0	93.0	126.0	5.0
2520MFB20	25 x 20	M8 x 20	63.0	93.0	126.0	5.0
2525MFB18	25 x 25	M6 x 18	44.5	66.0	92.0	6.25
2530MFB20	25 x 30	M8 x 20	39.0	58.0	77.5	7.5
3012MFB20	30 x 12	M8 X 20	97.0	139.5	201.0	3.25
3015MFB20	30 x 15	M8 x 20	88.3	132.0	184.5	3.75
3017MFB20	30 x 17	M8 x 20	82.0	121.0	167.0	4.25
3020MFB20	30 x 20	M8 x 20	75.5	113.5	155.0	5.00
3022MFB20	30 x 22	M8 x 20	69.0	102.0	140.5	5.50
3025MFB20	30 x 25	M8 x 20	63.0	97.0	131.0	6.25
3030MFB20	30 x 30	M8 x 20	52.5	77.5	106.5	7.50
3040MFB20	30 x 40	M8 x 20	53.5	78.5	108.5	10.0
4020MFB23	40 x 20	M8 x 23	155.0	233.0	333.5	5.0
4020MFB25	40 x 20	M10 x 25	155.0	233.0	333.5	5.0
4025MFB25	40 x 25	M10 x 25	136.0	204.0	281.5	6.3
4028MFB23	40 x 28	M8 x 23	124.0	184.5	252.0	6.8
4030MFB23	40 x 30	M8 x 23	116.5	174.5	242.5	7.5
4030MFB25	40 x 30	M10 x 25	116.5	174.5	242.5	7.5
4035MFB23	40 x 35	M8 x 23	103.0	153.5	213.5	8.8
4040MFB23	40 x 40	M8 x 23	97.0	145.5	199.0	10.0

Part No	D x H	d x L	45° Shore A	60° Shore A	70° Shore A	mm
4040MFB25	40 x 40	M10 x 25	97.0	145.5	199.0	10.0
5015MFB25	50 x15	M10 x 25	283.0	422.0	581.0	3.8
5018MFB25	50 x18	M10 x 25	360.0	480.0	690.0	4.0
5020MFB28	50 x 20	M10 x 28	343.0	511.0	705.0	5.0
5021MFB25	50 x 21	M10 x 25	344.0	514.0	708.0	5.3
5025MFB25	50 x 25	M10 x 25	300.5	446.0	616.0	6.3
5030MFB25	50 x 30	M10 x 25	247.0	364.0	504.0	7.5
5040MFB25	50 x 40	M10 x 25	170.0	252.0	349.0	10.0
5045MFB25	50 x 45	M10 x 25	150.5	223.0	310.5	11.3
5050MFB25	50 x 50	M10 x 25	136.0	203.5	281.5	12.5
6025MFB25	60 x 25	M10 x 25	514.0	669.5	1057.0	6.3
6030MFB37	60 x 30	M12 x 37	436.0	640.0	883.0	7.5
6040MFB25	60 x 40	M10 x 25	378.0	562.5	766.0	10.0
6040MFB37	60 x 40	M12 x 37	378.0	562.5	766.0	10.0
6050MFB37	60 x50	M12 x 37	300.0	446.0	616.0	12.5
7035MFB25	70 x 35	M10 x 25	548.0	873.5	1203.0	8.8
7035MFB37	70 x 35	M12 x 37	548.0	873.5	1203.0	8.8
7040MFB25	70 x40	M10 x 25	494.5	737.0	1019.0	10.0
7040MFB37	70 x 40	M12 x 37	494.5	737.0	1019.0	10.0
7045MFB25	70 x 45	M10 x 25	436.5	650.0	873.0	11.25
7045MFB37	70 x 45	M12 x 37	436.5	650.0	873.0	11.25
7525MFB37	75 x 25	M12 x 37	883.0	1339.0	1843.0	6.25
7530MFB37	75 x 30	M12 x 37	879.0	1309.0	1807.0	7.50
7540MFB37	75 x 40	M12 x 37	533.0	960.0	1310.0	10.00
7550MFB37	75 x 50	M12 x 37	495.0	737.0	1018.5	12.50
7555MFB37	75 x 55	M12 x 37	427.0	640.0	883.0	13.76
8030MFB35	80 x 30	M14 x 35	1028.0	1552.0	2134.0	7.50
8080MFB35	80 x80	M14 x 35	407.0	601.5	824.5	20.50
10030MFB41	100 x 30	M16 x 41	1821.0	3648.0	4920.0	7.50
10040MFB44	100 x 40	M16 x 44	1600.0	2376.0	3250.0	10.00
10050MFB41	100 x 50	M16 x 41	1358.0	2022.0	2794.0	12.50
10055MFB44	100 x 55	M16 x 44	1251.0	1891.0	2570.0	13.75
10060MFB44	100 x 60	M16 x 44	1115.0	1649.0	2275.0	15.00
100100MFB44	100 x 100	M16 x 44	630.0	936.0	1290.0	25.00

Max compression load in Kg deflection in mm.

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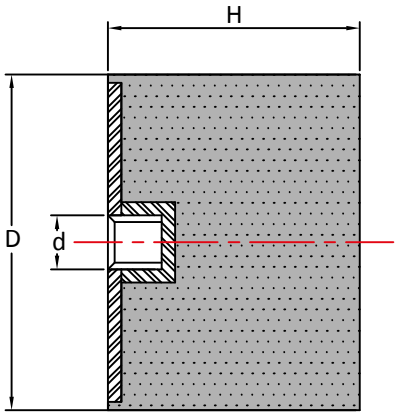
Female Flat Buffer



Part No	D x H	d	45° Shore A	60° Shore A	70° Shore A	mm
1510FFB04	15 x 10	M4	26.5	35.0	47.0	2.5
1515FFB04	15 x 15	M4	21.0	30.5	42.5	3.75
1520FFB04	15 x 20	M4	15.5	23.0	32.0	5.0
2015FFB06	20 x 15	M6	34.5	52.5	72.5	3.75
2020FFB06	20 x 20	M6	26.5	39.5	54.5	5.0
2025FFB06	20 x 25	M6	27.5	41.5	57.5	6.25
2030FFB06	20 x 30	M6	22.0	31.5	44.5	7.5
2515FFB06	25 x 15	M6	69.0	106.0	148.5	3.75
2517FFB06	25 x 17	M6	67.5	101.0	140.0	4.25
2520FFB06	25 x 20	M6	64.5	95.0	128.5	5.0
2525FFB06	25 x 25	M6	45.5	67.5	94.0	6.25
2530FFB06	25 x 30	M6	39.5	59.5	79.0	7.50
3015FFB08	30 x 15	M8	90.0	134.5	188.0	3.75
3017FFB08	30 x 17	M8	83.0	129.5	175.0	4.25
3020FFB06	30 x 20	M6	77.0	116.0	158.5	5.0
3025FFB08	30 x 25	M8	55.5	84.0	119.0	6.25
3030FFB08	30 x30	M8	53.5	79.0	109.0	7.5
3040FFB08	30 x 40	M8	54.5	80.0	111.0	10.0
4020FFB08	40 x 20	M8	158.0	238.0	327.0	5.00
4020FFB10	40 x 20	M10	158.0	238.0	327.0	5.00
4025FFB08	40 x 25	M8	139.0	208.0	287.0	6.25
4027FFB08	40 x 27	M8	125.5	186.5	255.7	6.75
4028FFB10	40 x 28	M10	127.0	188.0	257.0	7.00
4030FFB08	40 x 30	M8	119.0	178.0	248.0	7.50
4030FFB10	40 x 30	M10	119.0	178.0	248.0	7.50
4035FFB08	40 x 35	M8	105.0	156.0	218.0	8.75
4040FFB08	40 x 40	M8	99.0	148.0	203.0	10.00
5021FFB10	50 x 21	M10	352.0	525.0	723.0	5.00

Part No	D x H	d	45° Shore A	60° Shore A	70° Shore A	mm
5025FFB10	50 x 25	M10	307.0	455.0	629.0	6.25
5030FFB12	50 x 30	M12	252.0	371.0	515.0	7.50
5040FFB10	50 x 40	M10	173.0	257.0	356.0	10.00
5045FFB10	50 x 45	M10	153.0	228.0	317.0	11.25
5050FFB10	50 x 50	M10	139.0	208.0	287.0	12.50
6025FFB10	60 x 25	M10	525.0	683.0	1079.0	6.25
6040FFB10	60 x 40	M10	386.0	574.0	780.0	10.0
6040FFB12	60 x 40	M12	386.0	574.0	780.0	10.0
6045FFB12	60 x 45	M12	347.0	515.0	713.0	11.25
6050FFB12	60 x 50	M12	307.0	455.0	629.0	12.5
7040FFB10	70 x 40	M10	505.0	752.0	1040.0	10.0
7040FFB12	70 x 40	M12	505.0	752.0	1040.0	10.0
7045FFB10	70 x 45	M10	446.0	663.0	890.0	11.25
7045FFB12	70 x 45	M12	446.0	663.0	890.0	11.25
7050FFB10	70 x 50	M10	396.0	594.0	822.0	12.5
7050FFB12	70 x 50	M12	396.0	594.0	822.0	12.5
7525FFB12	75 x 25	M12	900.0	1365.0	1880.0	6.25
7540FFB12	75 x 40	M12	545.0	980.0	1337.0	10.00
7550FFB12	75 x 50	M12	505.0	752.0	1040.0	12.50
7555FFB12	75 x 55	M12	435.0	653.0	900.0	13.75
8040FFB14	80 x 40	M14	743.0	1109.0	1535.0	10.00
8080FFB14	80 x 80	M14	416.0	614.0	842.0	20.00
10030FFB16	100 x 30	M16	1821.0	3648.0	4920.0	7.50
10040FFB16	100 x 40	M16	1633.0	2425.0	3316.0	10.00
10050FFB16	100 x 50	M16	1386.0	2064.0	2850.0	12.50
10055FFB16	100 x 55	M16	1277.0	1930.0	2624.0	13.75
10060FFB16	100 x 60	M16	1139.0	1683.0	2322.0	15.00
100100FFB16	100 x 100	M16	644.0	955.0	1317.0	25.00

Max compression load in Kg deflection in mm.

Tapered Buffers

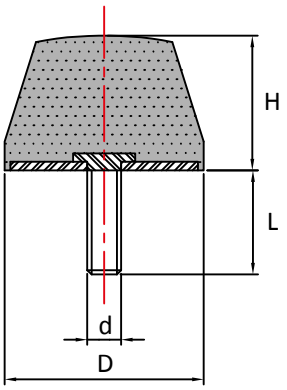
Tapered Buffers are ideal for absorbing shock. They provide high levels of deformation under impact force, and a progressive stiffness rate to accommodate varying shock forces, thus giving excellent levels of absorption and protection of machinery and fabrications.

Stainless Steel Metals, Synthetic rubber compounds and Female Fixings available on request.

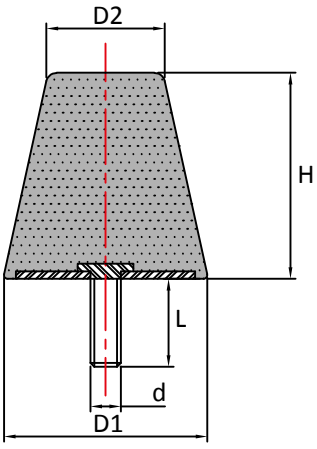
Applications include:

- Primary and Secondary suspension for vehicles, bump stops for general Industrial Machinery, Assister springs, Construction and Agricultural Machinery.

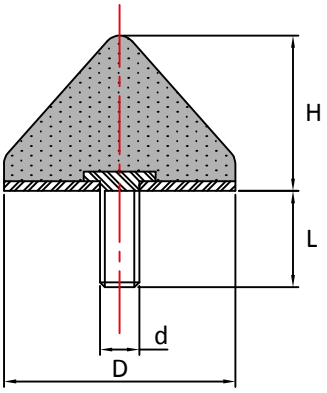
Part No.	D	H	d	L
1212MCBT10	12	12	M4	10
1406MCBT04	14	6	M4	4
2512MCBT18	25	12	M6	18
2514MCBT10	25	14	M4	10
2517MCBT18	25	17	M6	18
3627MCBT20	36	27	M8	20
4521MCBT46	45	21	M8	46
5018MCBT28	50	18	M10	28
5020MCBT28	50	20	M10	28
5050MCBT28	50	50	M10	28
8027MCBT37	80	27	M12	37
12545MCBT45	125	45	M16	45



Part No	D1	D2	H	d	L
3835MFBT27	38	30	35	M10	27
4335MFBT27	43	30	35	M10	27
4350MFBT25	43	30	50	M10	25



Part No	D	H	d	L
2417MCB20	24	17	M8	20
2516MCB20	25	16	M8	20
4024MCB28	40	24	M8	28
5028MCB28	50	28	M8	28
5045MCB35	50	45	M10	35
6045MCB28	60	45	M10	28
8565MCB37	85	65	M12	37



Max compression load in Kg deflection in mm.

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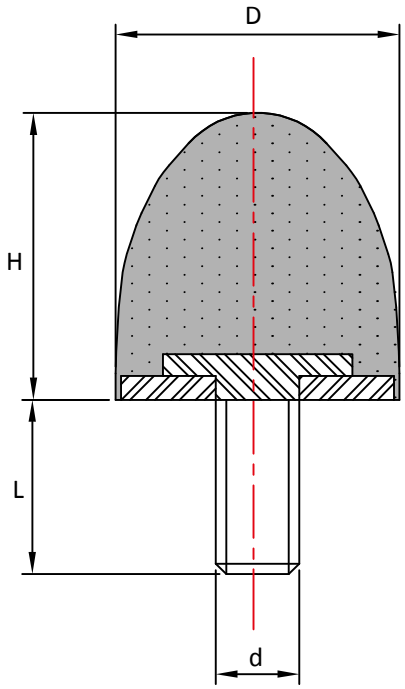
Conical Buffers

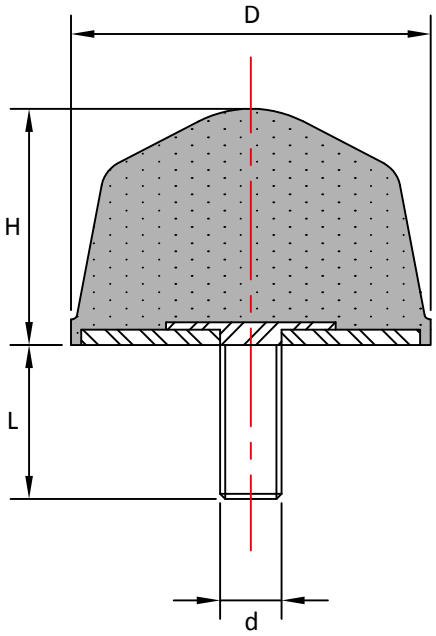
Conical Buffers are ideal for absorbing shock. They provide high levels of deformation under impact force, and a progressive stiffness rate to accommodate varying shock forces, thus giving excellent levels of absorption and protection of machinery and fabrications.

Stainless Steel Metals, Synthetic rubber compounds and Female Fixings available on request.

Applications include:

- Primary and Secondary suspension for vehicles, bump stops for general Industrial Machinery, Assister springs, Construction and Agricultural Machinery.





MCB3460

Part No	D x H	d x L	45° Shore A	60° Shore A	70° Shore A	mm
1010MCB12	10 x 10	M5 x 12	2.3	4.6	6.7	2.25
2015MCB10	20 x 15	M6 x 10	9.8	19.7	28.9	3.75
2024MCB18	20 x 24	M6 x 18	6.9	13.8	20.3	6.25
2425MCB18	24 x 25	M6 x 18	35	51	71	6.25
2514MCB20	25 x 14	M8 x 20	35	50	70	3.5
2516MCB18	25 x 16	M6 x 18	32	64	94.08	4.0
3030MCB14	30 x 30	M6 x 14	37.0	54.0	74.0	7.5
3540MCB23	35 x 40	M8 x 23	15.3	30.6	45.0	10.0
4535MCB23	45 x35	M8 x 23	96.0	140.0	193.0	7.5
5050MCB25	50 x 50	M10 x 25	117.0	170.0	233.0	12.5
5058MCB20	50 x 58	M8 x 20	147.0	214.0	293.0	15.0
5061MCB28	50 x 61	M8 x 28	135	200	260	14.5
5064MCB35	50 x 64	M8 x 35	127.0	185.0	253.0	16.0

Part No	D x H	d x L	45° Shore A	60° Shore A	70° Shore A	mm
5067MCB33	50 x 67	M8 x 33	120	170	240	16.0
5068MCB38	50 x 68	M10 x 38	120	170	240	16.2
6040MCB62	60 x 40	M14 x 62	209.0	305.0	418.0	10.0
6060MCB37	60 x 60	M12 x 37	195.0	286.0	395.0	15.0
7058MCB32	70 x 58	M12 x 32	164.4	328.8	483.3	13.7
7060MCB35	70 x 60	M12 x 35	210.0	360.0	419.0	14.5
7589MCB37	75 x 89	M12 x 37	95.2	190.4	279.8	21.2
9580MCB45	95 x 80	M16 x 45	407.0	594.0	814.0	20.0
10095MCB31	105 x 95	M12 x 31	225.0	450.0	680.0	24.0
100100MCB31	100 x 100	M12 x 31	220.0	440.0	660.0	23.0
100120MCB31	105 x 121	M12 x 31	210.0	420.0	630.0	30.0
11877MCB41	118 x 77	M16 x 41	-	-	-	18.2
MCB3460*	70 x 46	M12 x 30	178.0	260.0	356.0	11.5

* See illustration for profile of MCB3460

Max compression load in Kg deflection in mm.

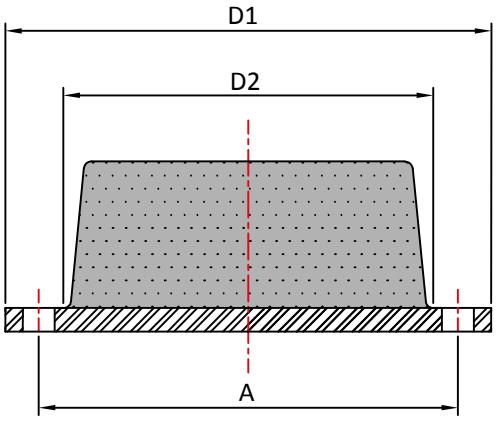
This information is for guidance only. Customers are recommended to contact us for further technical information on products and applications.
We reserve the right to alter specifications or withdraw products without notice.

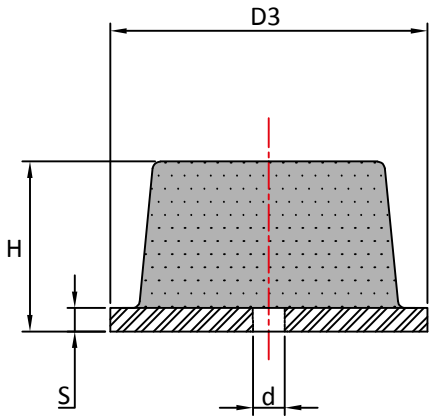
Plate Buffers

Plate buffers provide a Heavy Duty solution for absorbing high levels of shock and impact forces. The large rubber section allows for high levels of deformation, ensuring that the impact energy is dissipated effectively.

Applications

- Construction Equipment and Vehicles
- Agricultural Vehicles
- Commercial Vehicles
- General Industrial Machinery





Part No	D1	D2	D3	A	H	d	S	Max Kg
PB335	84.0	46	32.0	68.6	19	6.9	3.2	750.0
PB238	121.0	86	57.0	105.0	56	8.6	6.3	4200.0
PB15	150.0	90	60.0	125.0	50	10.0	6.0	3000.0
PB260	156.0	88	64.0	127.0	36	13.5	5.0	2400.0

Max compression load in Kg deflection in mm.

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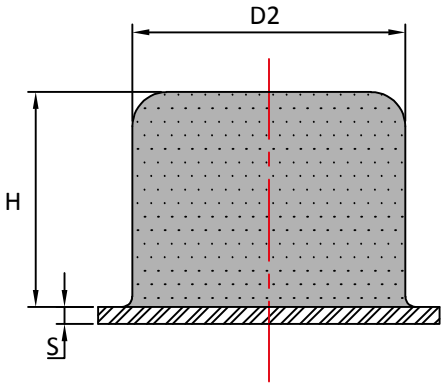
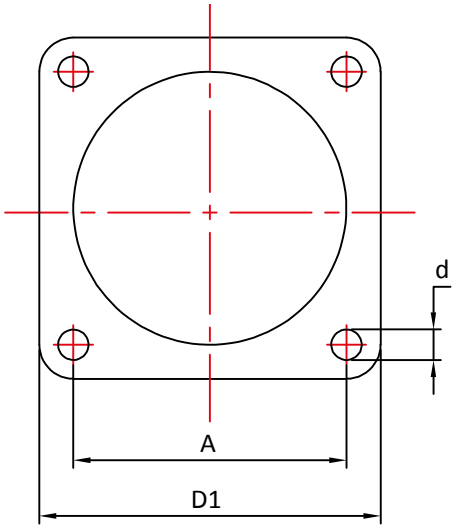
Square Plate Buffers

Square Plate buffers provide a Heavy Duty solution for absorbing high levels of shock and impact forces. The large rubber section allows for high levels of deformation, ensuring that the impact energy is dissipated effectively.

Applications

- Construction Equipment and Vehicles
- Mining and Quarry Equipment
- Agricultural Vehicles
- Lifts and Elevators
- General Industrial Machinery



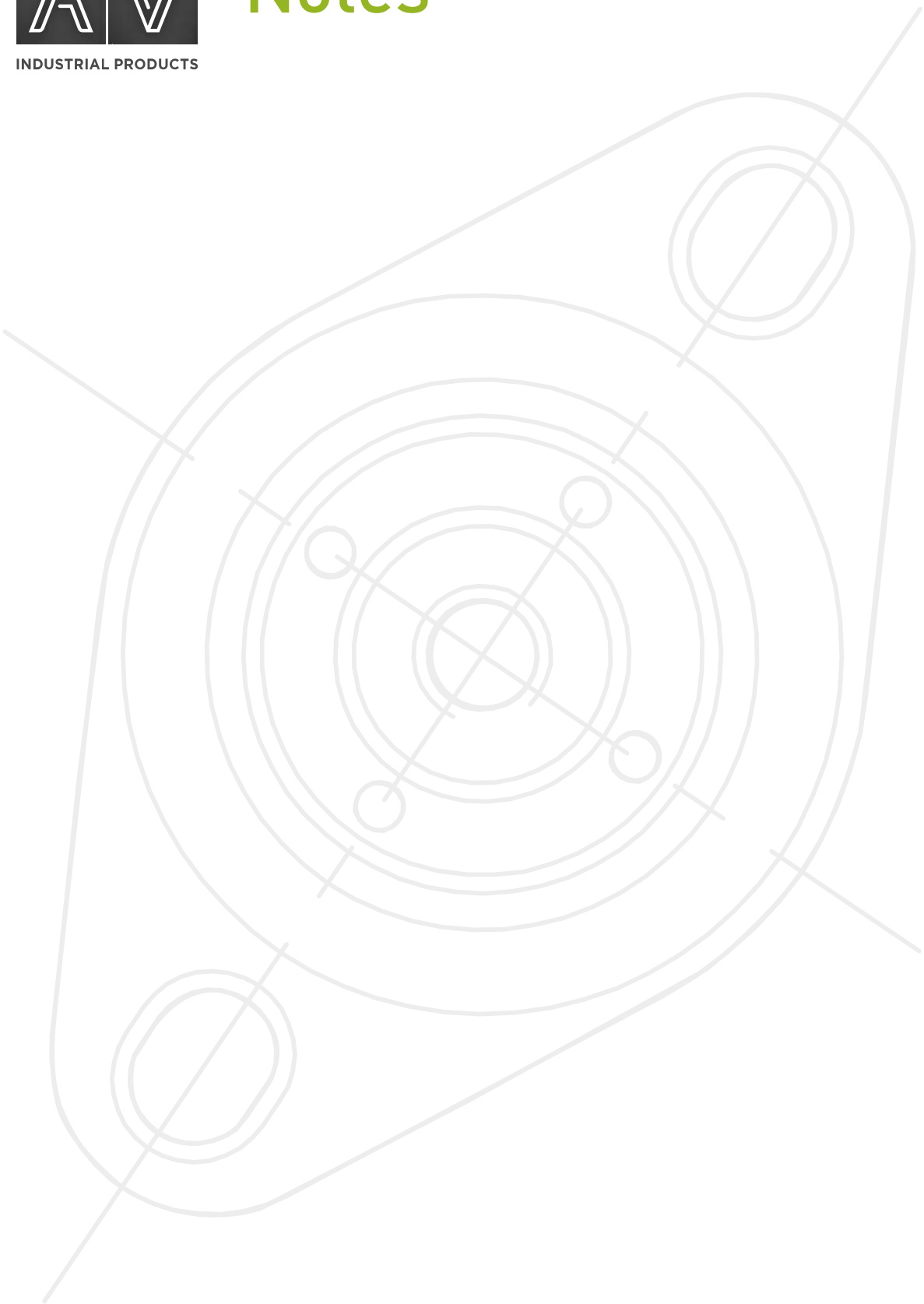


Part No	D1	A	D2	d	H	S	Max Kg
PB50	50	40	40	5,5	32	2	1530
PB63	63	50	50	6,5	40	3	2440
PB75	100	75	75	9	60	3	6000
PB80	80	63	63	6,5	50	4	3820
PB100	100	80	80	9	63	5	6110
PB125	125	100	100	9	80	6	9680
PB130	130	100	100	11	78	6	9500
PB1700-2	160	135	125	13	70	6	20000
PB160	160	125	125	11	100	6	15290
PB200	200	160	160	11	125	8	24460
PB250	250	200	200	13	160	8	38220

Max compression load in Kg deflection in mm.

INDUSTRIAL PRODUCTS

Notes



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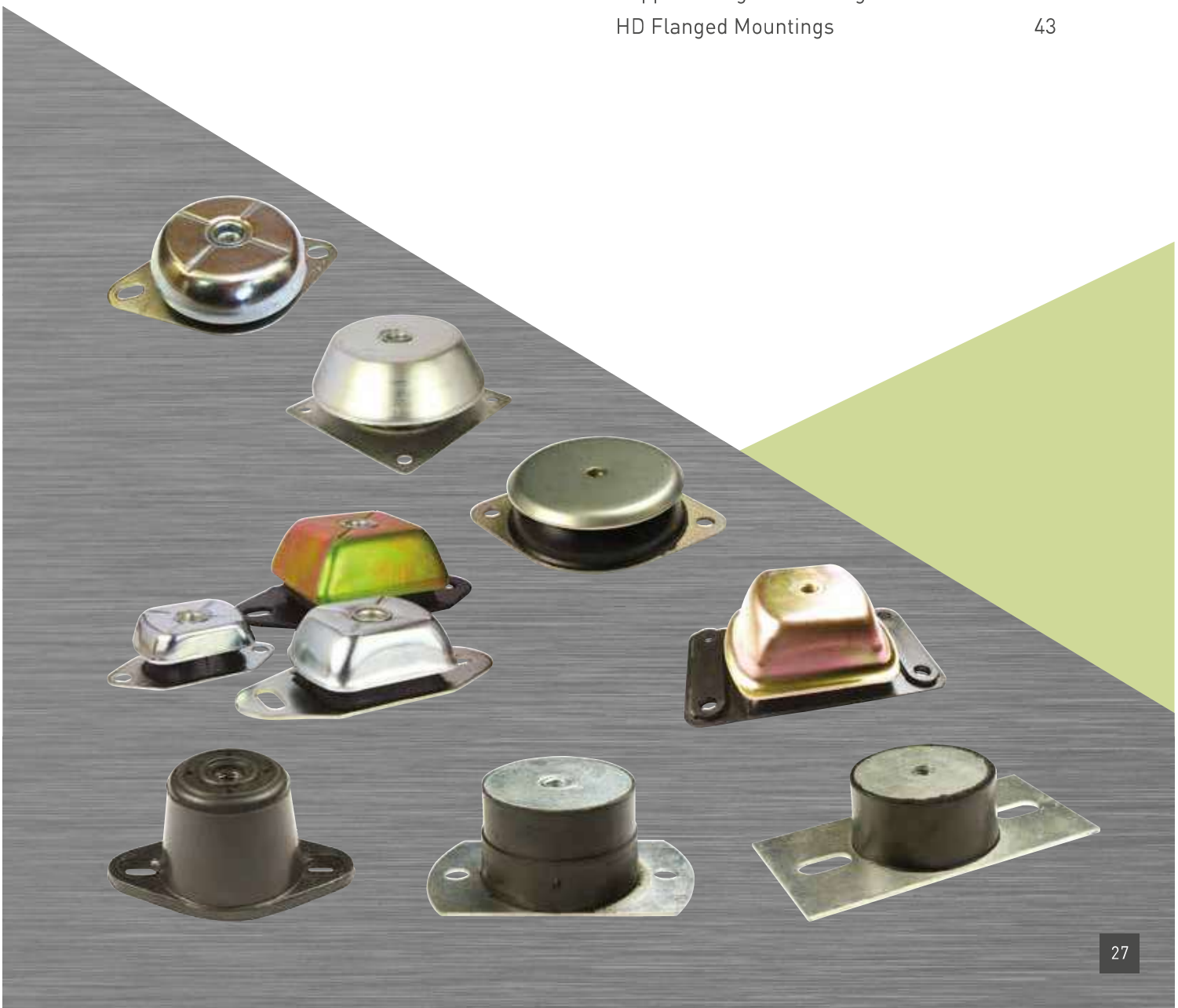
INDUSTRIAL PRODUCTS

Flanged Mountings



Captive Transit Mounts

A universal mounting, popular in a wide range of applications. Cost Effective, High Performing and Easy to Install. The rubber is used in shear compression providing optimum performance and offers vibration reduction of up to 95% in all axis. The metal top cap provides protection from contamination such as Oil and Fuel. Load Ratings from 20kg to 5,000kg.

Captive Transit Mounts are designed with an integral overload stop to control movement of the mounted equipment, during transit, and also provide a failsafe arrangement to control shock loads. Suitable for both Mobile and Static applications.

Advantages:

- Failsafe Design – Ideal for Mobile Equipment
- High Performance Vibration Reduction
- Easy to Install
- Protection from Contamination

Applications:

- Generating Sets
- Diesel Engines
- Marine Engines
- Construction and Plant Equipment
- Pumps and Compressors
- Industrial & Commercial Vehicles

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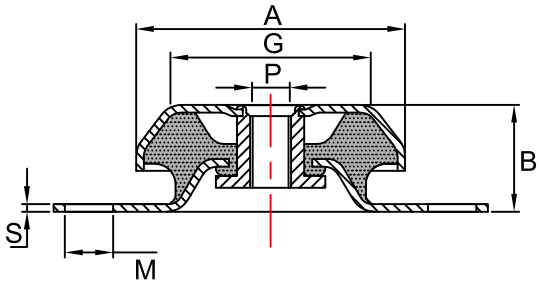
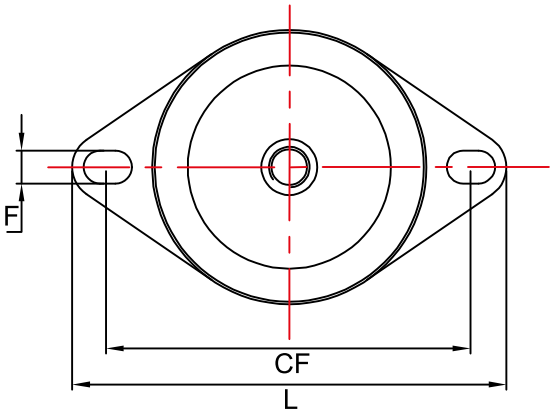
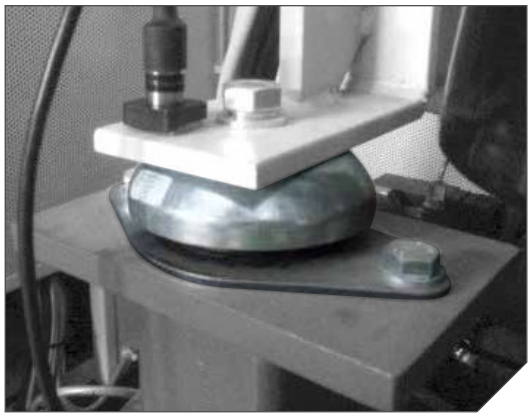
Captive Transit Mounts





Part No	A	B	P	F x M	CF	G	L	S
CTM4823	48	23	M6/M8	6.1ø	68	34	84	2.0
CTM-R*	64	34	M12	9.5ø	76	47	93	2.5
CTM6335	63	35	M10 / M12	9 x 14	76 - 90	50	110	2.5
CTM6535	65	35	M12	15 x 11	100	45	120	3.0
CTM7730	77	30	M10 / M12	9ø	108 - 110	60	135	3.0
CTM8335	83	35	M10 / M12	11ø	108 - 110	65	135	3.0
CTM9245	92	45	M12	10.5ø	110	73	128	3.0
CTM9335	93	35	M10 / M12	10ø	122 - 124	70	144	2.5
CTM10638	106	38	M12 / M16	12.5 x 19	138-146	80	171	4.0
CTM10642	106	42	M12 / M16	12.5 x 19	138-146	80	171	4.0
CTM10850	108	50	M16	16.5ø	160	83	190	5.0
CTM11548	115	48	M16	16ø	160	85	190	4.0
CTM12142	121	42	M12 / M16	13.5ø	150 - 163	92	190	4.0
CTM12548	125	48	M16	14 x 11	150 - 163	99	192	4.0
CTM14448	155	48	M16	14 x 11	176-188	120	216	4.0
CTM14453	155	53	M16	14 x 11	176-188	120	216	4.0

*Manufactured from High Damped Rubber compound



Max compression load in Kg deflection in mm.

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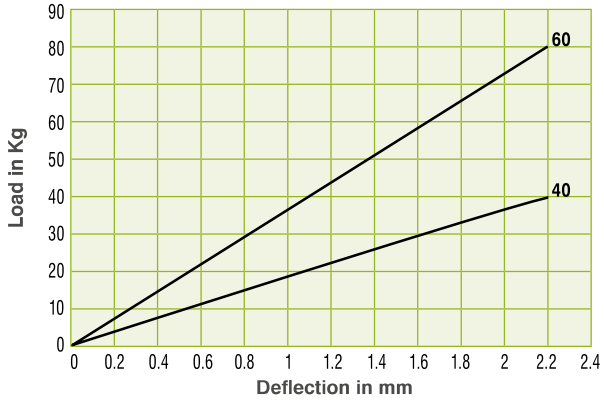
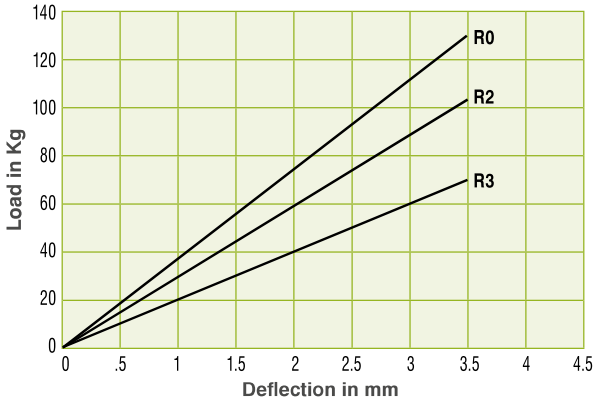
CTM4823



CTM-R



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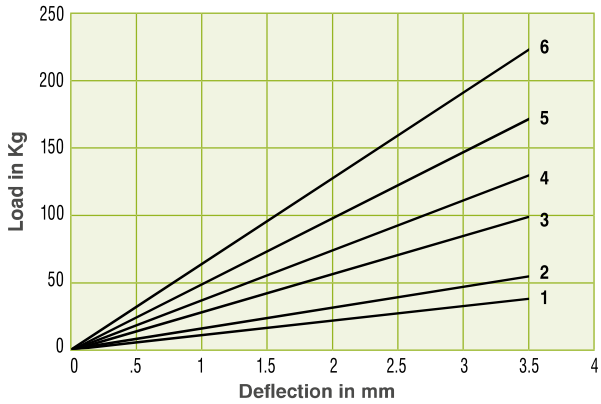

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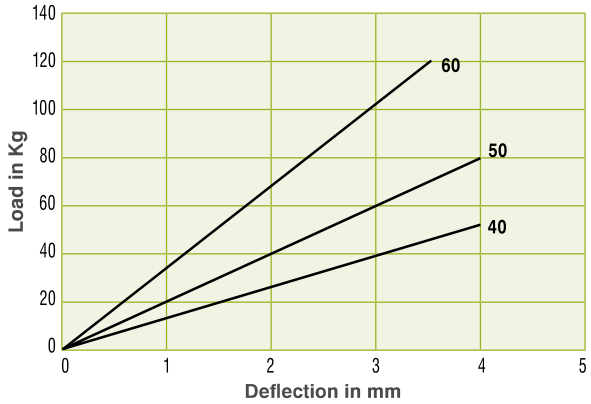
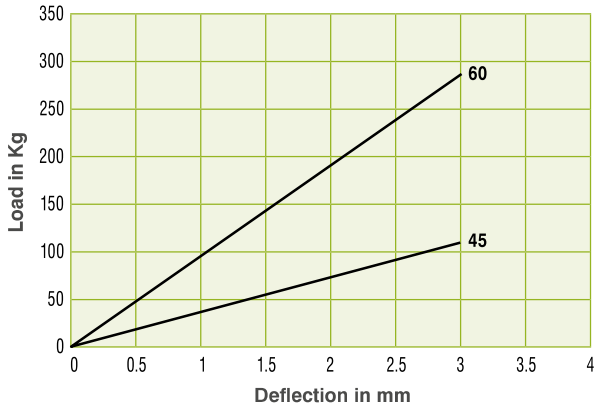
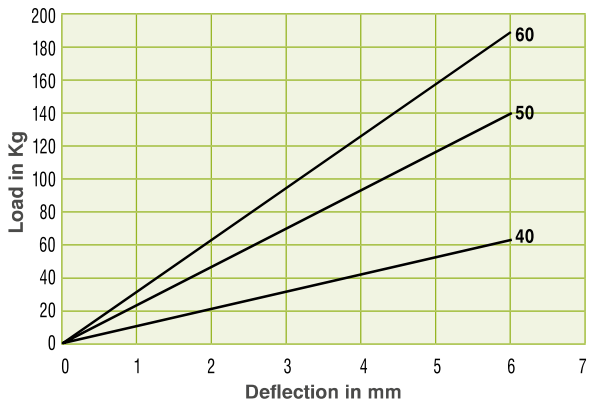


CTM7730



CTM8335



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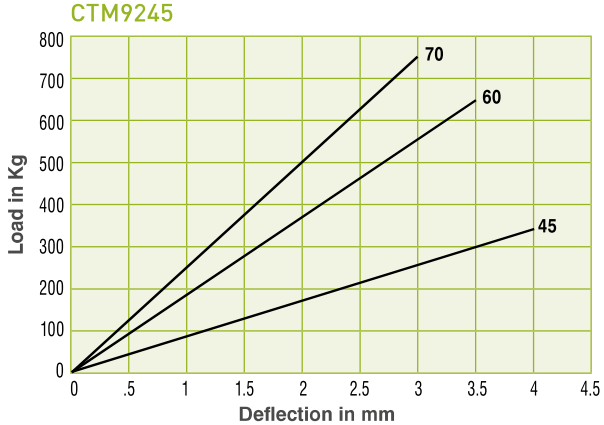
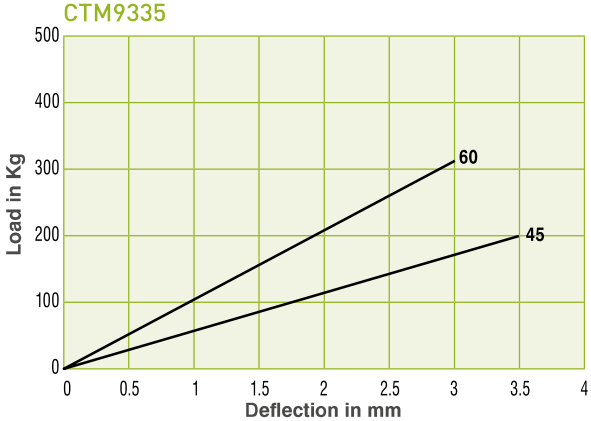


CTM9335



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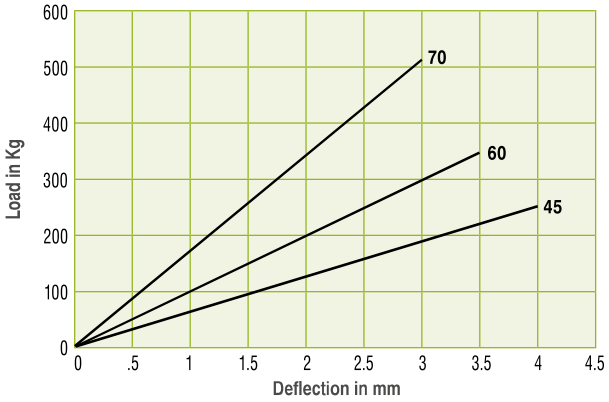
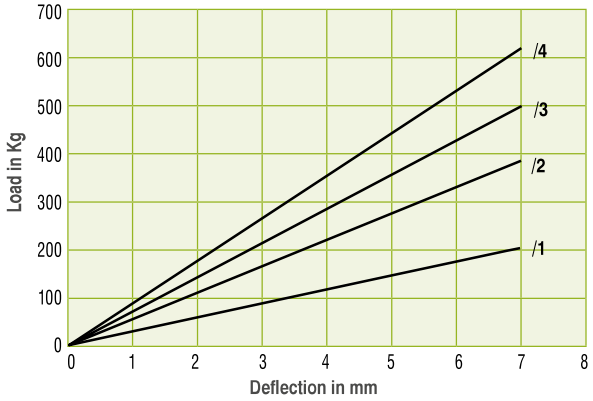
CTM10638



CTM10642



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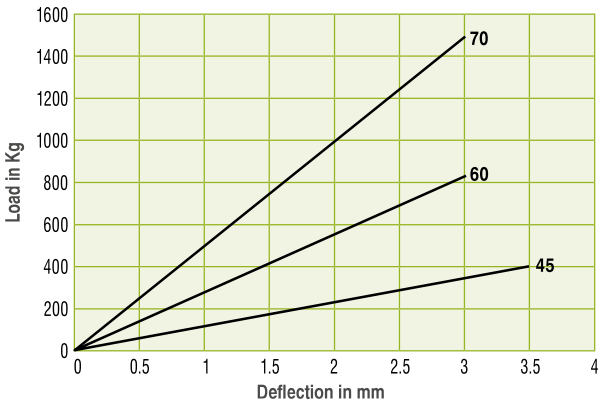
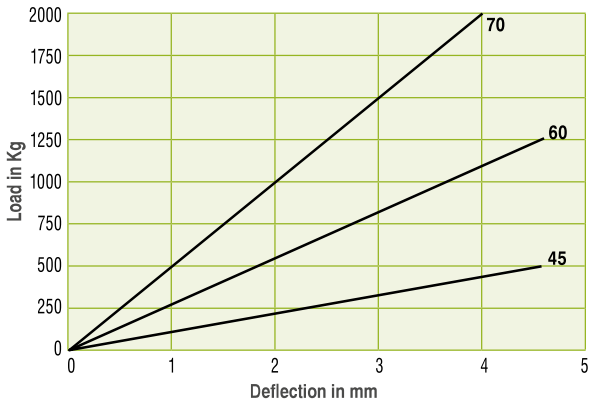
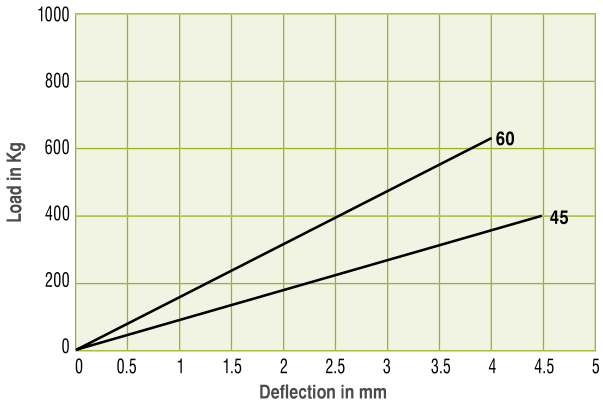


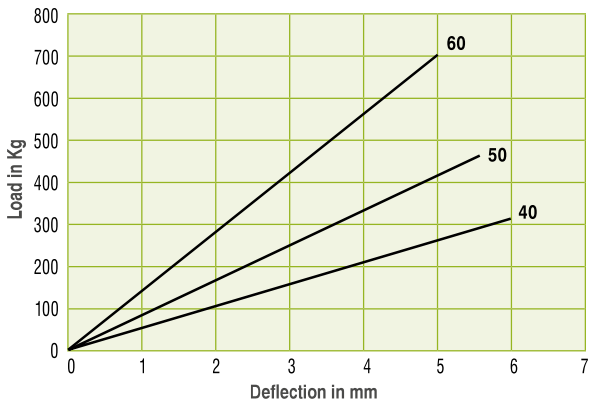
CTM11548



CTM12142

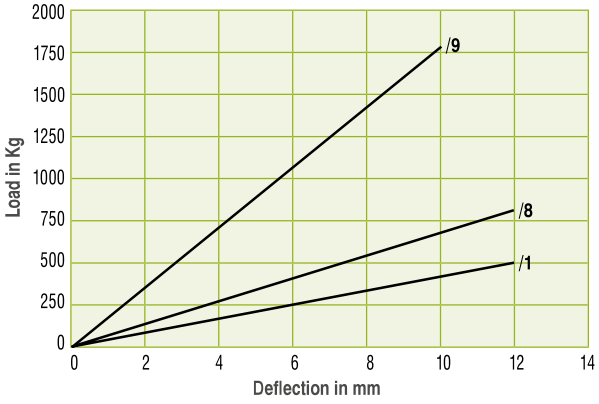


CTM12548



CTM14448

CTM14453



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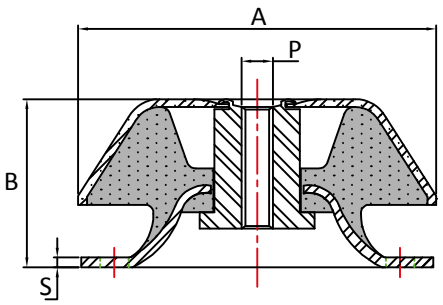
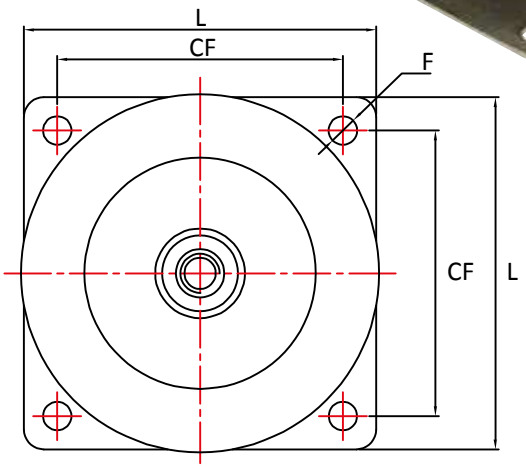
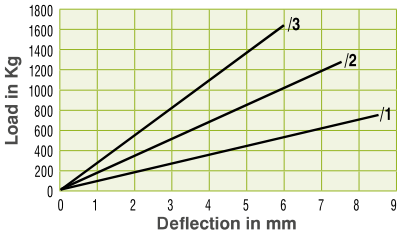
Square Flanged Captive Mounts





Part No	A	B	P	F	CF	L	S
SFCM150	150	50	M16	14.5	132	170	4
SFCM150HD	150	54	M16	14.5	132	170	4
SFCM160	162	59	M20	14.5	140	170	4
SFCM180	180	66	M20	14.5	149 - 163	192	5
SFCM180HD	183	86	M20	14.5	146	180	5
SFCM220	220	105	M24	17.5	180	220	6
SFCM220HD	220	105	M24	17.5	180	220	6

SFCM150



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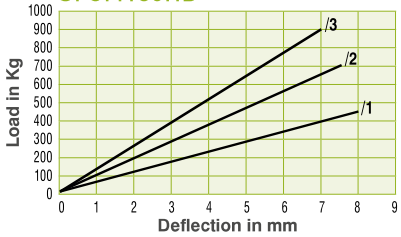
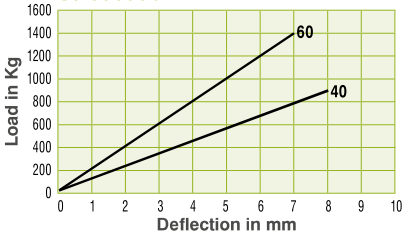
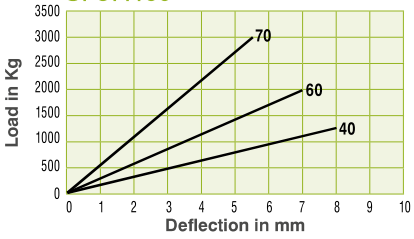


SFCM160



SFCM180



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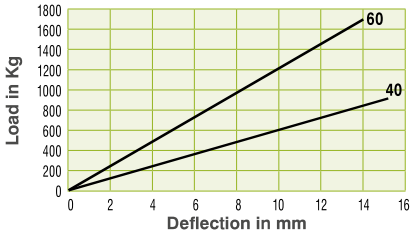
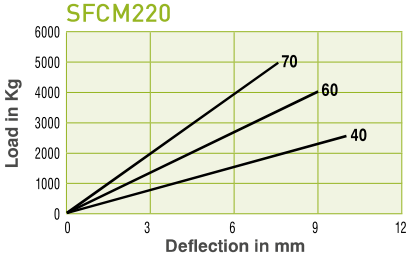
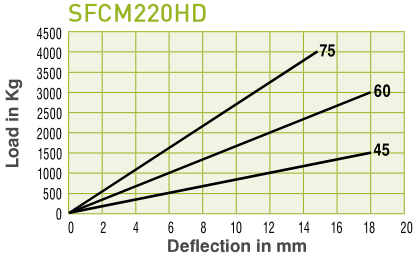


SFCM220



SFCM220HD



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Silent Marine™ Mountings

Silent Marine™ Mountings were originally designed for use in Marine Propulsion Engines and therefore are failsafe and can accommodate thrust. Nowadays Silent Marine™ is popular throughout a wide range industries. Offering a High Performance, Easy to Install, and Cost effective solution to reducing vibration. The mountings provide different stiffness' in each axis, which provides optimum performance, particularly for Diesel Engines.

Can also be supplied with Lloyds Approval.

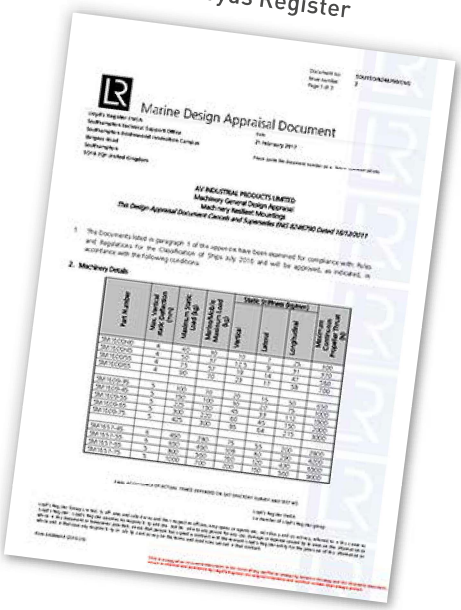
Advantages:

- Ideal for Mobile Applications
- Accommodates Marine Engine Thrust
- Excellent Vibration Absorption
- Easy to Install

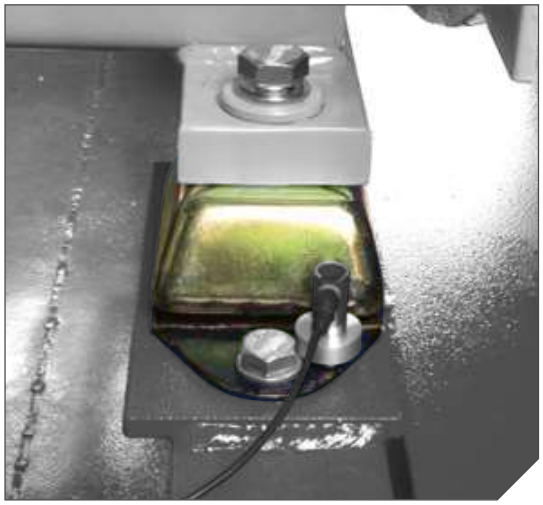
Applications:

- Marine Propulsion Engines
- Generating Sets
- Vehicle Diesel Engines
- Pumps
- Compressors

Lloyds Register



Marine Design Appraisal Document



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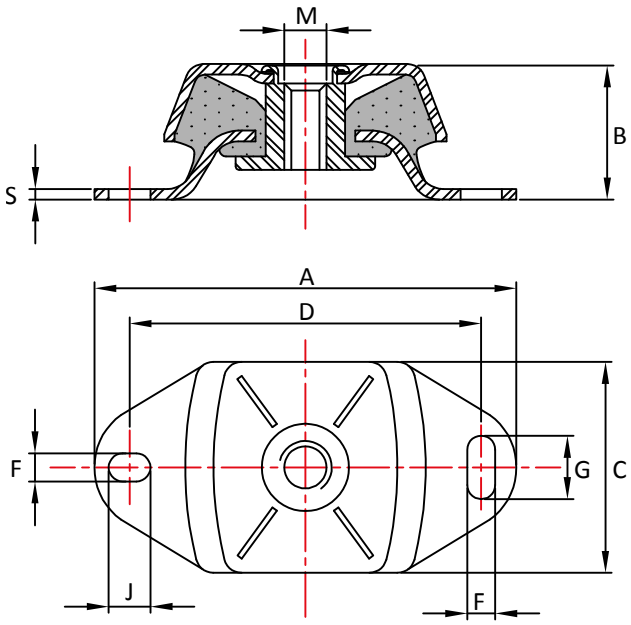
Silent Marine™



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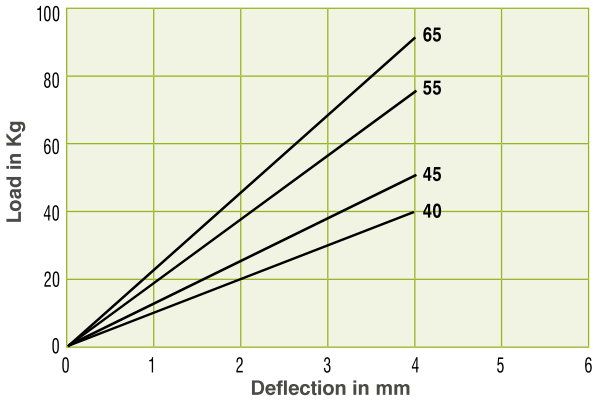
- Easy to Install

Applications:

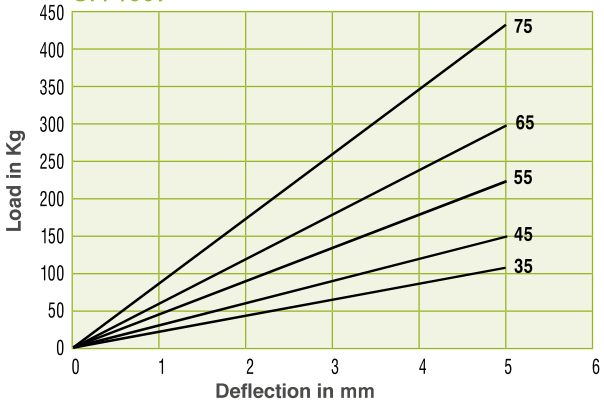
- Marine Propulsion Engines
- Generating Sets
- Vehicle Diesel Engines
- Pumps
- Compressors

Part No	A	B	C	D	F	M	G	J	S
SM1600	120	38.5	60	100	11	M12	14	11	3
SM1609	183	50	75	140	13	M16	30	20	4
SM1657	228	70	114	182	18	M20	35	25	5

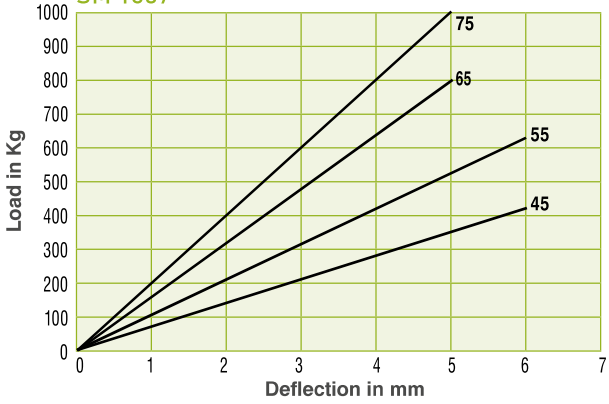
SM 1600



SM 1609



SM 1657



Maximum Loads should be derated for marine propulsion engines.

Height adjusters available see page 36

Max compression load in Kg deflection in mm.

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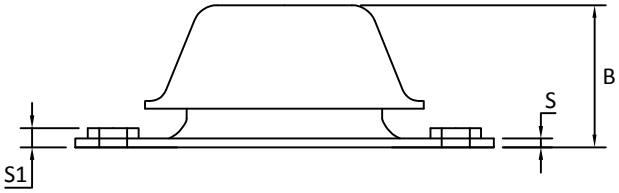
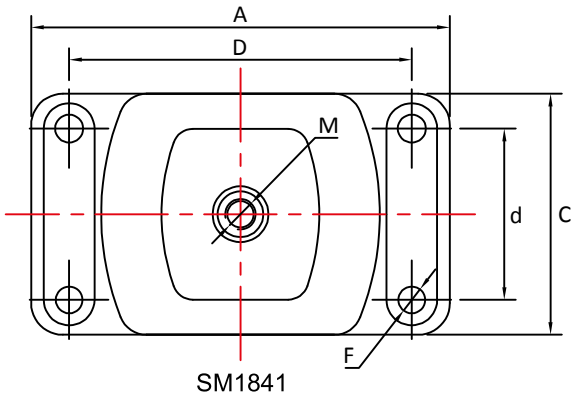
Silent Marine™ Jumbo





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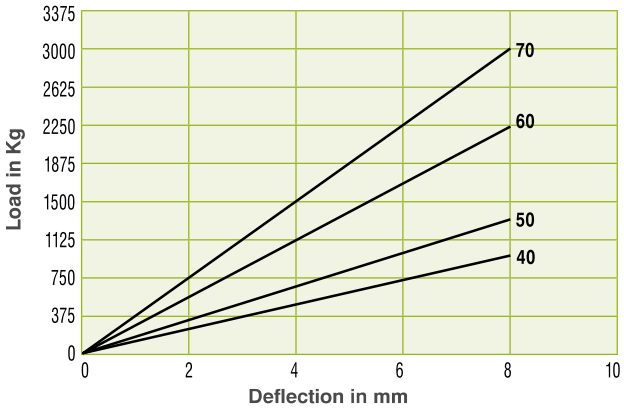
Applications:

- Marine Propulsion Engines
- Generating Sets
- Vehicle Diesel Engines
- Pumps
- Compressors

FLANGED MOUNTINGS

Part No	A	B	C	D	d	F	M	S	S1
SM1841	330	111	190	270	135	22	M24	7	14

SM1841



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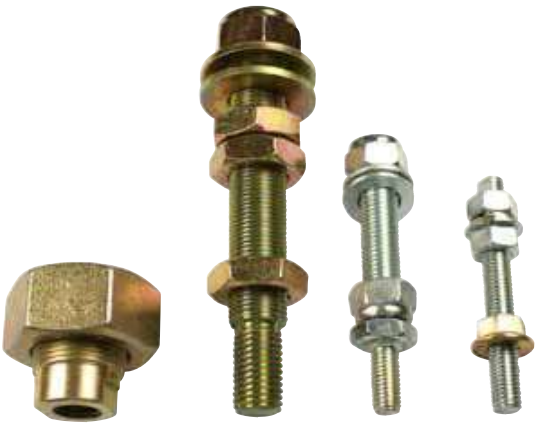
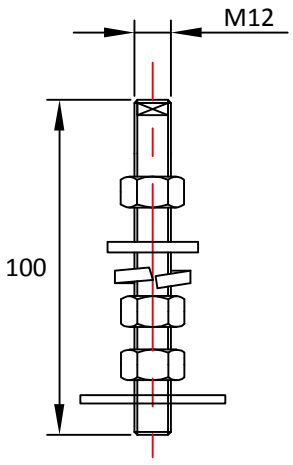
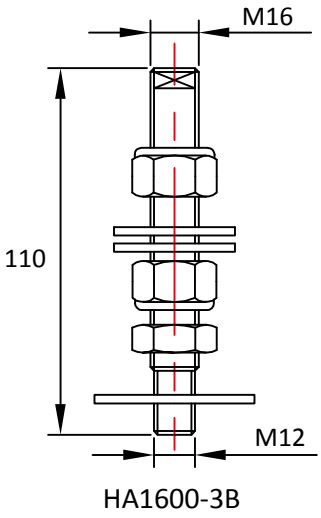
Max compression load in Kg deflection in mm.

Height Adjusters

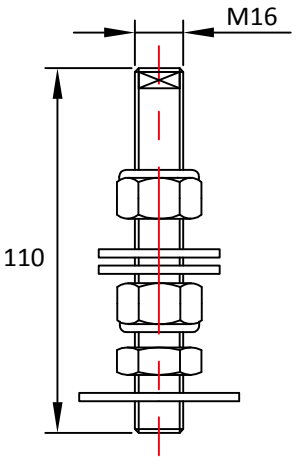




HA1600A-1



HA1600-3B



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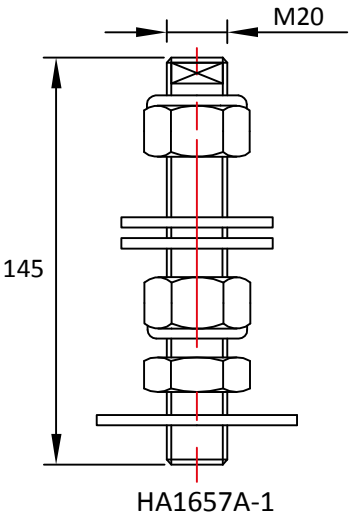

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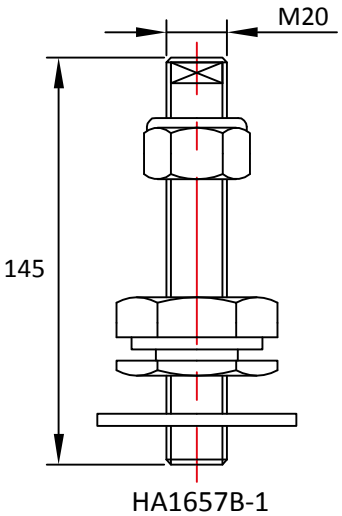
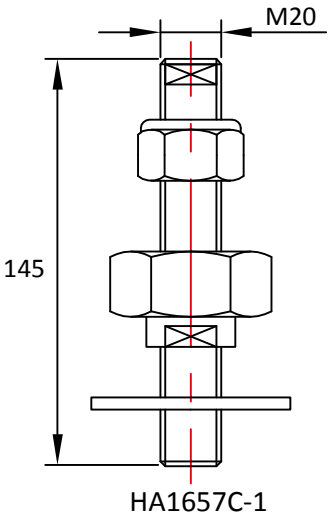


HA1657B-1



HA1657C-1

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Flanged Circular Mountings

Flanged Circular Mountings are a simple, low cost, compression mounting and provide good levels of vibration reduction. The mountings are produced with or without a metal interleaf. The interleaf provides increased load capacity.

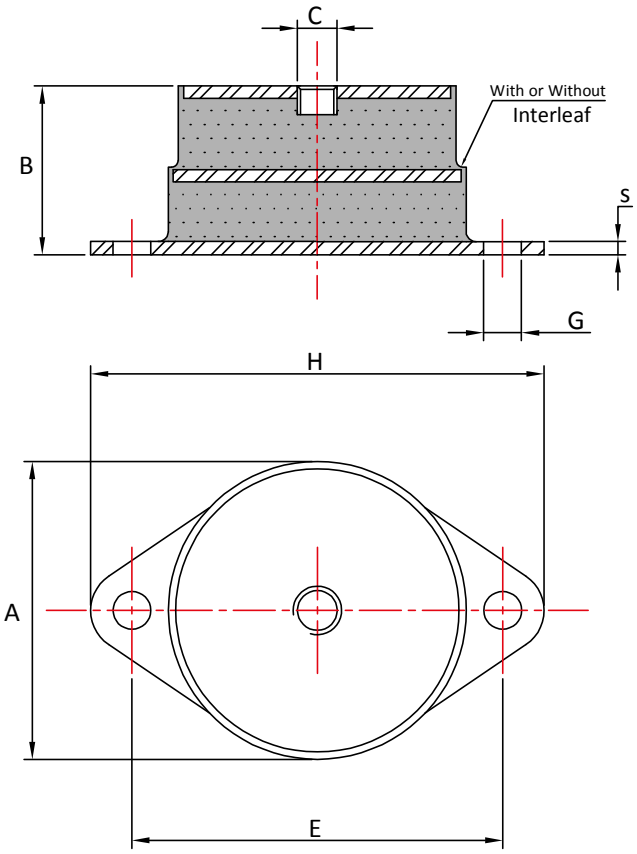
Oil and Fuel Resistant rubber compounds and Stainless Steel metals available on request.

Advantages:

- High Load Capacity
- Low Cost
- Easy to Install

Applications:

- Generating Sets
- Pumps
- Compressors
- Processing Equipment



Part No	A	B	C	E	G	H	S	60° Shore	
								Load (Kg)	Def. (mm)
FCM2	76	50	M12*	100	12.5	127	3	250	5
FCM2I	76	50	M12*	100	12.5	127	3	500	5
FCM3	81	50	M12*	112	12.5	140	3	400	5
FCM3I	81	50	M12*	112	12.5	140	3	750	5
FCM5	125	64	M20	176-184	18 x 23	220	4	1200	5
FCM5I	125	64	M20	176-184	18 x 23	220	4	2000	4

"I" denotes "Interleaf" * Mountings can be supplied with Stud

Max compression load in Kg deflection in mm.

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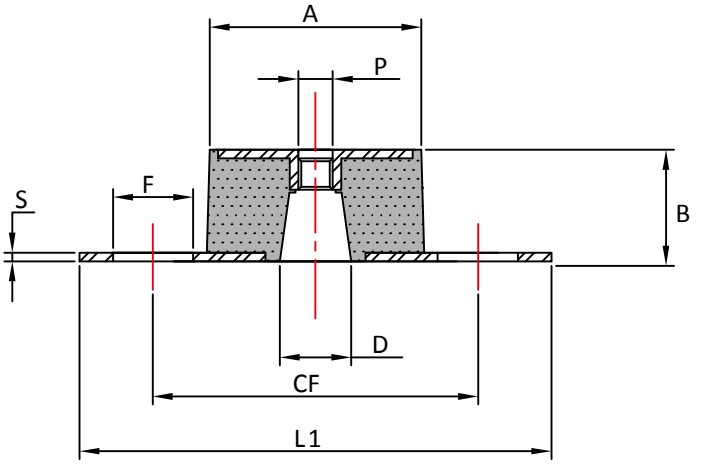
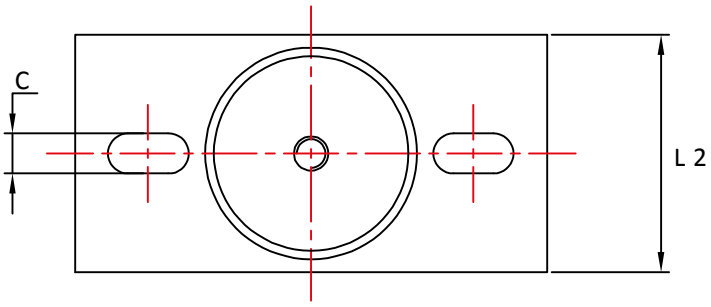
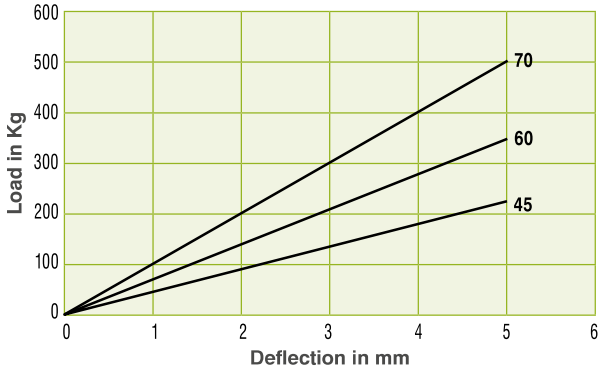




Part No	A	B	C	D	F	CF	L1	L2	P	S
FCM763812	76	39	14	25	28	99-128	165	83	M12	3



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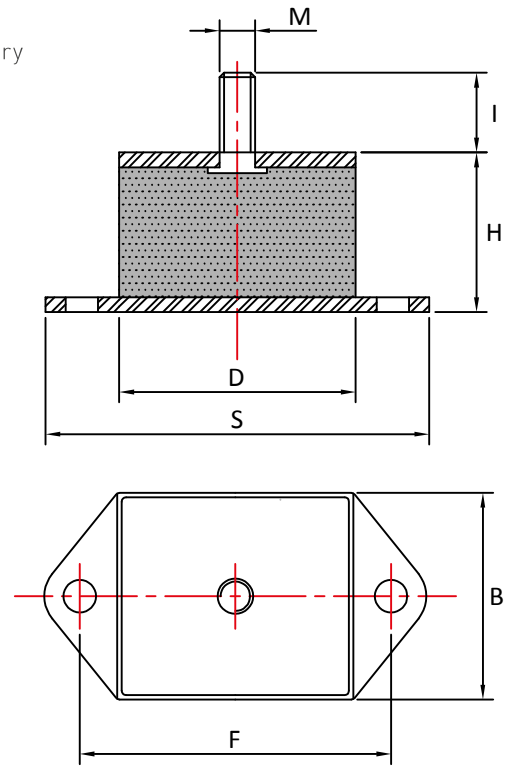
SL Mountings

A simple but effective anti-vibration mounting for static machinery. The SL mountings are easy to install and provide effective reduction in structure borne vibration.

Applications:

- Diesel engines
- Pumps
- Compressors
- Motors
- General industrial machinery



Part No	F	D	B	H	M	I	S
SL60	105	80	70	55	M12	35	130

Max compression load in Kg deflection in mm.

This information is for guidance only. Customers are recommended to contact us for further technical information on products and applications.
We reserve the right to alter specifications or withdraw products without notice.

Turret Mountings

Turret mountings are designed primarily for the HVAC industry, they are a low cost design, ideal for static applications. The rubber completely encapsulates the metal parts to avoid corrosion problems.

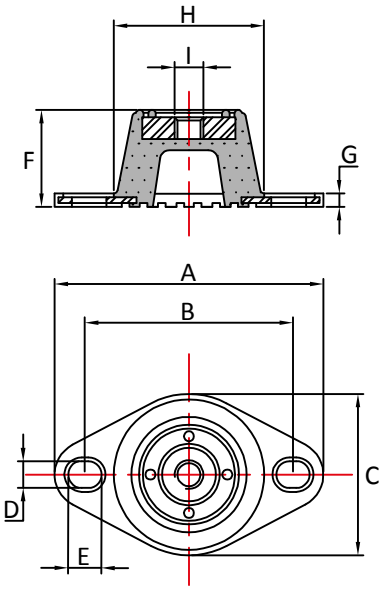
They give relatively high levels of deflection, allowing for good levels of vibration reduction to be achieved, even at low running speeds.

Advantages:

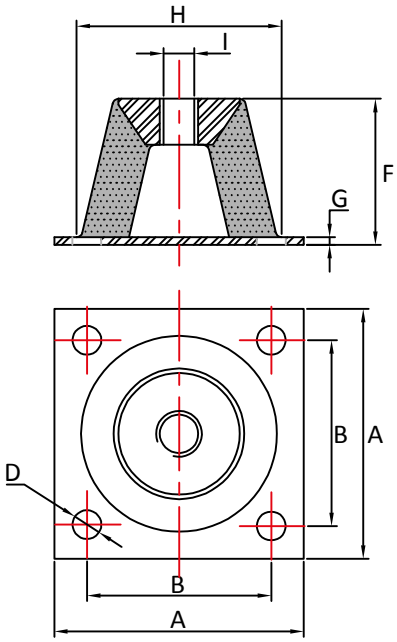
- Encapsulated Metals
- High Deflection
- Low Cost
- Easy to Install

Applications:

- HVAC
- Fans
- Pumps
- Compressors



Type A



Type B Not Encapsulated

Part No	Type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm
TM229	A	62	49.2	38	4.8	4.8	29.5	5.5	35.3	M8
TMS	A	80	54-60	45	9	12	32	5	41	M8
TMM	A	95	67-76	60	9	14	45	5	56	M10
TML	A	150	105-126	86	11	22.5	70	6	82	M12
TMC6535	B	65	48	-	7.5	-	36	2	51	M10

Part No	Max Load (Kg)	Max Deflection (mm)	Hardness Shore A	Colour Code
TM229-40	5	2.7	40	PURPLE
TM229-50	10	2.5	50	GREEN
TM229-60	15	2.0	60	YELLOW
TMS08035-45	35	8.0	45	YELLOW
TMS08065-55	65	8.0	55	BLUE
TMS08100-65	100	8.0	65	RED
TMM10130-45	130	10.0	45	YELLOW
TMM10225-55	225	10.0	55	BLUE
TMM10350-65	350	10.0	65	RED
TML10185-45	185	10.0	45	YELLOW
TML10320-55	320	10.0	55	BLUE
TML10500-65	500	10.0	65	RED
TMC6535-45	45	5.6	45	WHITE
TMC6535-55	75	5.9	55	RED
TMC6535-65	115	5.0	65	BLACK

Max compression load in Kg deflection in mm.

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Flanged Mountings

Flanged Mountings give high levels of deflection, providing excellent levels of vibration reduction and shock absorption both in the vertical and horizontal planes. They are particularly suited to isolating slow speed equipment.

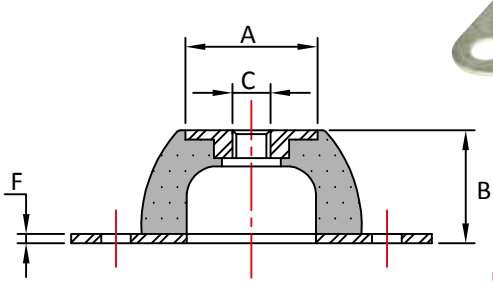
Stainless Steel metals and Oil / Heat resistant rubbers available on request.

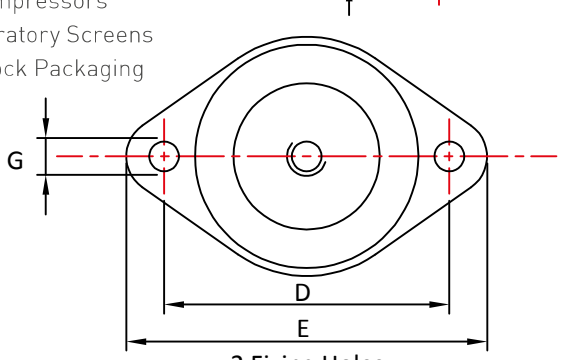
Advantages:

- Ideal for Slow Speed Equipment
- Easy to Install
- Low Cost
- Vibration Isolation up to 95%

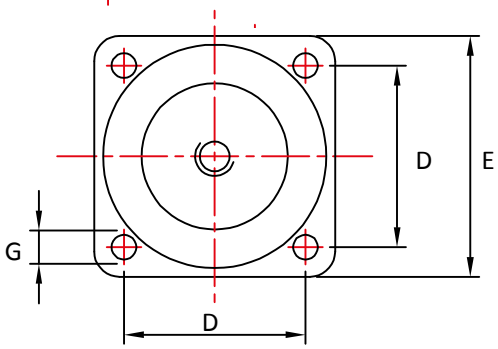
Applications:

- Pumps
- Fans
- Compressors
- Vibratory Screens
- Shock Packaging





2 Fixing Holes



4 Fixing Holes

Part No	Fixing Holes	A (mm)	B (mm)	C	D (mm)	E (mm)	F (mm)	G (mm)
FM1566	2	26.5	11.6	M6	50	60	1.74	6
FM209	2	31	21.5	M8/M10	60	77	3	9.2
FM007	2	18	20	M6	50	64	2	7
FM25	2	33	25	M8/M10	66 – 73	85	2	8 x 12
FM50	2	45	35	M10	92	114	2	10
FM100	2	53	40	M10	110	136	2	11.5
FM200	2	58	45	M10	124	151	3	11.5
FM400	4	70	63	M12	120	150	3	14.5
FM600	4	100	85	M16	160	200	4	14.5
FM1500	4	186	160	M24	250	310	6	18

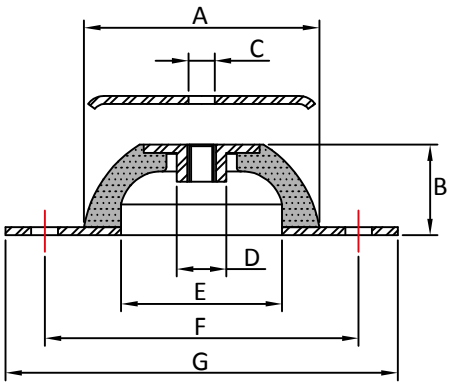
Part No	40 Shore		60 Shore		75 Shore	
	kg	mm	kg	mm	kg	mm
FM1566	10.0	1.4	20.0	1.35	23.0	1.1
FM209	40.0	3.0	76.0	2.8	112.0	2.5
FM007	3.5	3.0	9.0	3.0	13.0	2.7
FM25	20.0	4.5	40.0	4.5	57.0	4.0
FM50	38.0	5.0	69.0	4.8	101.0	4.5
FM100	60.0	7.0	100.0	6.5	147.0	6.0
FM200	130.0	10.0	220.0	9.0	320.0	8.5
FM400	270.0	14.5	540.0	13.0	793.0	9.5
FM600	375.0	17.0	750.0	15.5	1103.0	12.0
FM1500	1150.0	46.0	2300.0	41.5	3381.0	37.0

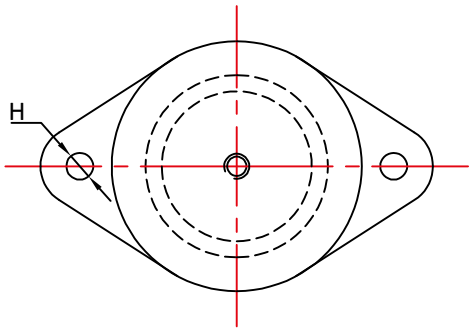
Max compression load in Kg deflection in mm.

Capped Flanged Mountings

Flanged Mountings give high levels of deflection, providing excellent levels of vibration reduction and shock absorption both in the vertical and horizontal planes.
They are particularly suited to isolating slow speed equipment.

The mountings are supplied with a metal top cap to ensure the load is evenly spread on the rubber surface and also provides splash protection against fuel and oils.





Advantages:

- Ideal for Lightweight Equipment
- Easy to Install
- Low Cost
- Vibration Isolation up to 95%

Applications:

- Pumps
- Fans
- Compressors

Part No	A	B	C	D	E	F	G	H
FM4020	40	20	M6	19	29	52	64	6.2
FM6024	60	24	M6	14	34	76	90	6.2
FM8027	80	27	M8	25	65	100	120	8.2
FM10028	100	28	M10	22	70	124	148	10.0
FM15039	150	39	M14	34	115	182	214	12.0
FM20044	200	44	M18	35	140	240	280	15

Part No	45 Shore		60 Shore		75 Shore	
	kg	mm	kg	mm	kg	mm
FM4020	4	2	10	2.5	17	2.5
FM6024	15	3	25	3	45	3
FM8027	75	7	110	6	150	4
FM10028	90	4	160	4	220	4
FM15039	130	7	250	7	350	6
FM20044	500	7	825	7	1250	6

Max compression load in Kg deflection in mm.

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High Deflection Flanged Mountings

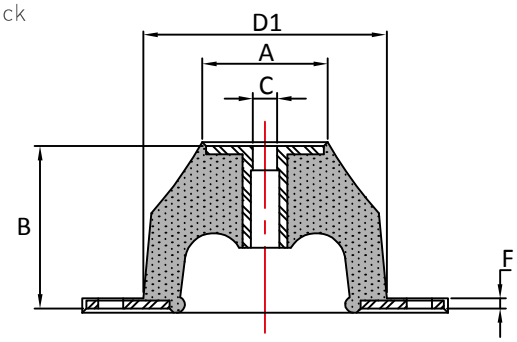
HD Flanged Mountings offer high levels of deflection, providing excellent levels of vibration reduction and shock absorption both in the vertical and horizontal planes. The metals are encapsulated in rubber to provide excellent corrosion resistance.

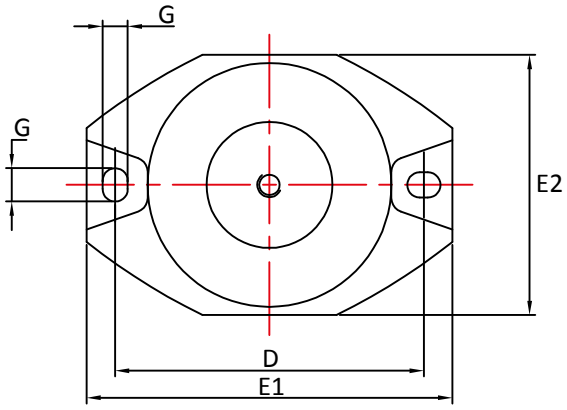
Advantages:

- High Deflection
- Easy to Install
- Encapsulated Metals
- Common Height throughout product range

Applications:

- Pumps
- HVAC (Fans)
- Compressors
- Shock protection





Part No	A	B	C	D	D1	E1	E2	F	G
FM4012	12	40	M6	52	40	64	44	2.5	6.2 x 6.2
FM6050	32	40	M6	76	60	90	64	2.5	8.2 x 6.2
FM80130	48	40	M8	100	80	122	84	2.5	12.2 x 8.2
FM100260	68	40	M10	124	100	152	104	3	16.2 x 10.2
FM150500	116	40	M12	182	150	214	154	4.5	20.2 x 12.2
FM2001350	159	40	M16	240	200	280	204	5.5	24.2 x 14.2

Part No	Hardness /1		Hardness /2		Hardness /3		Hardness /4	
	kg	mm	kg	mm	kg	mm	kg	mm
FM4012	4	8	7	8	12	8	15	8
FM6050	20	8	30	8	50	8	62.5	8
FM80130	70	8	100	8	130	8	162.5	8
FM100260	160	8	200	8	260	8	325	8
FM150500	325	8	400	8	500	8	625	8
FM2001350	640	8	820	8	1050	8	1350	8

Max compression load in Kg deflection in mm.

INDUSTRIAL PRODUCTS

Notes

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INDUSTRIAL PRODUCTS

Machinery Mountings

Cast Foot Mountings

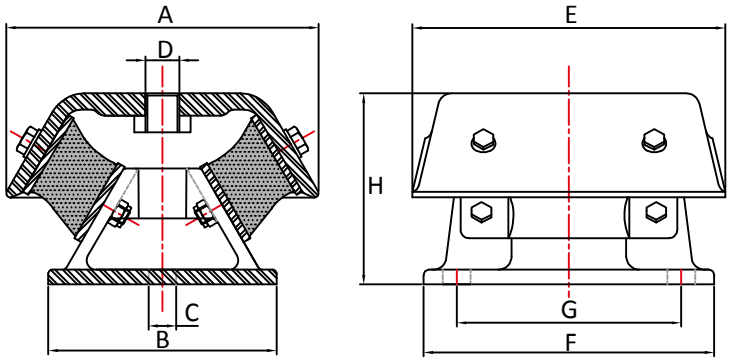
Cast Foot Mountings are the ideal choice for large reciprocating machinery and heavy duty industrial equipment. Using the rubber in Shear/ Compression they can accommodate high loads and provide excellent vibration reduction properties of up to 98%. The strong construction of the mounting ensures a safe, reliable product with extended service life and very high performance. These mountings can also be supplied with fail-safe stops for mobile applications.

Advantages:

- Robust Design
- Load Range from 30kg to 1800kg per Mounting
- Superior Vibration Reduction
- Easy to Install

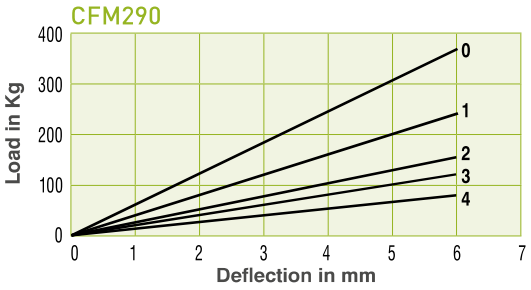
Applications:

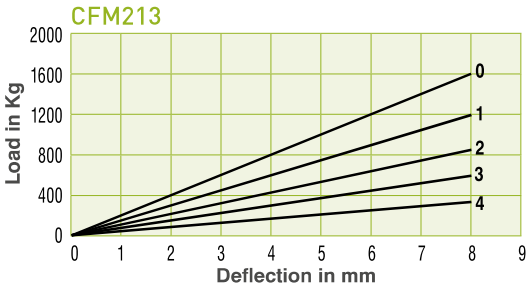
- Diesel Engines
- Generator Sets
- Compressors
- Fans
- Pumps
- Industrial Machinery

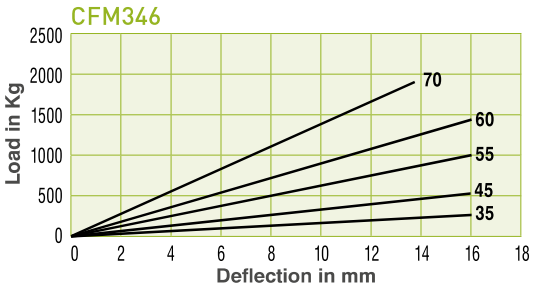


Part No	A	B	C	D	E	F	G	H
CFM290	132	82	13	M16	122	114	90	71.5
CFM213	204	146	18	M16	230	205	165	110
CFM346	204	146	18	M16	230	205	165	120

For free standing installations rubber base pads can be supplied.







Max compression load in Kg deflection in mm.

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Rectangular Sandwich Mountings

Sandwich mountings are a simple design whereby the rubber section is sandwiched between a top and bottom metal plate.

The mounting also incorporates an integrally bonded metal interleaf which increases the vertical stiffness and maximum load capacity of the mounting, whilst leaving the horizontal stiffness relatively unchanged.

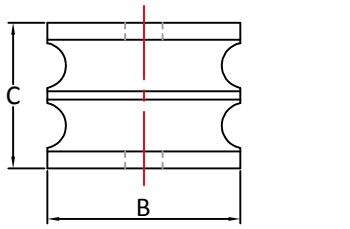
The mountings can be used in Compression, Shear or a combination of both. For ultimate performance the mountings can be used in a "V" arrangement.

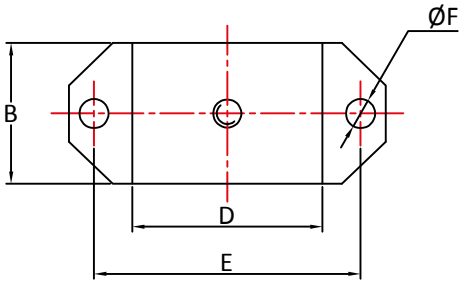
Advantages:

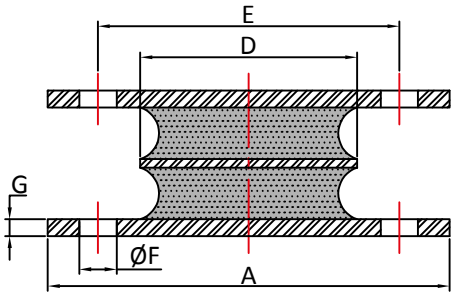
- High Vertical to Horizontal Stiffness Ratio
- Heavy Duty – up to 1000Kg per mounting
- High Performance – "V Arrangement"

Applications:

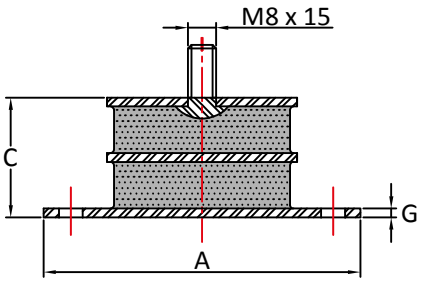
- Engine mountings
- Generator sets
- Heavy plant
- Machinery
- Vibratory Screens







RSM332 RSM284 RSM242



RSM406

Part No	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Kg	mm
RSM406-45	90	40	36	54	74.5	6.8	3.5	95	2.8
RSM406-50	90	40	36	54	74.5	6.8	3.5	135	2.8
RSM406-60	90	40	36	54	74.5	6.8	3.5	200	2.8
RSM406-70	90	40	36	54	74.5	6.8	3.5	310	2.8
RSM322-45	110	57	43	64	89	11	5	190	3
RSM322-60	110	57	43	64	89	11	5	375	3
RSM322-70	110	57	43	64	89	11	5	500	2.6
RSM284-45	127	57	43	84	108	11	5	300	3
RSM284-60	127	57	43	84	108	11	5	600	3
RSM284-70	127	57	43	84	108	11	5	800	2.6
RSM242-45	168	57	43	127	146	11	5	450	3
RSM242-60	168	57	43	127	146	11	5	850	2.8
RSM242-70	168	57	43	127	146	11	5	1000	2.2

Max compression load in Kg deflection in mm.

Rail Mountings

Heavy Duty and Robust - Rail Mountings are ideal for supporting heavy plant and machinery. They can be supplied in up to 2 meters in length, with top and bottom metals, or bottom metal only. Suitable for use in Compression, Shear, or a combination of both.

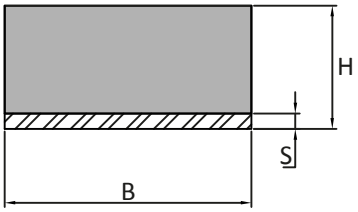
Advantages:

- Can be cut to required size
- Fixing Holes can be drilled to suit
- High Load Capacity

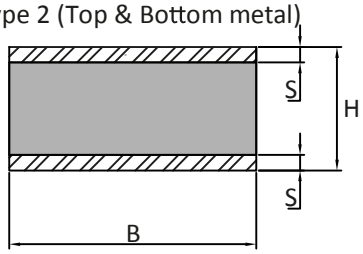
Applications:

- Power Generation
- Pumps
- Heavy Plant & Machinery

Type 1 (Bottom metal only)



Type 2 (Top & Bottom metal)



Rail Mountings can be supplied in lengths of up to 2 meters.

Part No	B	H	S		
			5	10	15
RM2030	20	30	✓	x	x
RM2525	25	25	✓	✓	x
RM2530	25	30	✓	✓	x
RM3020	30	20	✓	✓	x
RM3030	30	30	✓	✓	x
RM4020	40	20	✓	✓	x
RM4030	40	30	✓	✓	x
RM4040	40	40	✓	✓	x
RM5030	50	30	✓	✓	x
RM5040	50	40	✓	✓	x
RM5050	50	50	✓	✓	x
RM5060	50	60	✓	✓	x
RM5070	50	70	✓	✓	x
RM6020	60	20	✓	✓	x
RM6030	60	30	✓	✓	x
RM6040	60	40	✓	✓	x
RM6050	60	50	✓	✓	x
RM6060	60	60	✓	✓	x
RM6070	60	70	✓	✓	x
RM6080	60	80	✓	✓	x
RM7030	70	30	✓	✓	x
RM7040	70	40	✓	✓	x
RM7050	70	50	✓	✓	x
RM7060	70	60	✓	✓	x
RM7070	70	70	✓	✓	x
RM7080	70	80	✓	✓	x

Part No	B	H	S		
			5	10	15
RM8040	80	40	✓	✓	x
RM8045	80	45	✓	✓	x
RM8060	80	60	✓	✓	x
RM8080	80	80	✓	✓	x
RM9045	90	45	x	✓	✓
RM10040	100	40	x	✓	✓
RM10050	100	50	x	✓	✓
RM10060	100	60	x	✓	✓
RM10070	100	70	x	✓	✓
RM10080	100	80	x	✓	✓
RM10090	100	90	x	✓	✓
RM100100	100	100	x	✓	✓
RM12045	120	45	x	✓	✓
RM12050	120	50	x	✓	✓
RM12060	120	60	x	✓	✓
RM12070	120	70	x	✓	✓
RM12080	120	80	x	✓	✓
RM15050	150	50	x	✓	✓
RM15060	150	60	x	✓	✓
RM15070	150	70	x	✓	✓
RM15080	150	80	x	✓	✓
RM15090	150	90	x	✓	✓
RM150100	150	100	x	✓	✓
RM20060	200	60	x	✓	✓
RM20080	200	80	x	✓	✓
RM200100	200	100	x	✓	✓

Max compression load in Kg deflection in mm.

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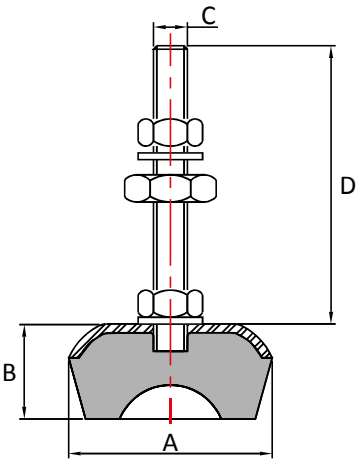
Levelling Feet

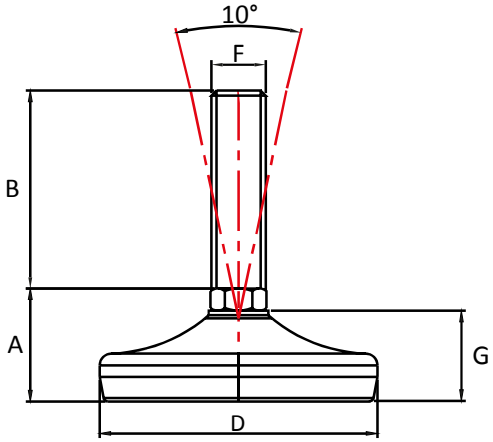
Levelling Feet are simple, low cost products suitable for most types of machinery. They allow machinery to be levelled and also provide a degree of vibration and noise reduction. Additional sizes, Stainless Steel Metals, and Oil Resistant/High Temperature rubbers available on request.

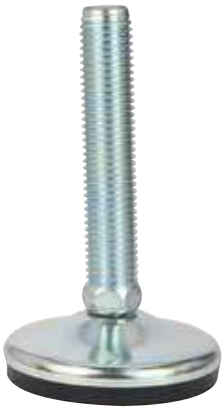
Applications:

- Machine tools
- Lathes; Presses
- Heavy industrial equipment
- Conveyors
- Food processing



Part No	A	B	C	D	Min Load (kg)	Max Load (kg)
HARFSV000	45	23	M8	48	20	80
HARFSV00	60	28	M10	81	60	120
HARFSV0	70	34	M12	89	90	160
HARFSV1	85	32	M12	89	130	350
HARFSV2	100	40	M14	109	270	600
HARFSV3	120	50	M16	116	450	900
HARFSV4	140	50	M16	116	700	1200
HARFSV5	160	60	M16	116	1100	1750
HARFSV6	180	70	M24	138	1500	2500
HARFSV7	205	75	M24	138	2100	3750





Part No	G	B*	F*	D	A	Max Static Load (kg)
AVLF50	19	min 50-150 max	min M10-M16 max	50	29	400
AVLF80	25	min 50-200 max	min M10-M24 max	80	35	1000
AVLF100	30	min 75-250 max	min M16-M30 max	100	38.5	1500
AVLF120	32	min 75-250 max	min M16-M30 max	120	42.5	3000

* Available with various thread sizes and lengths

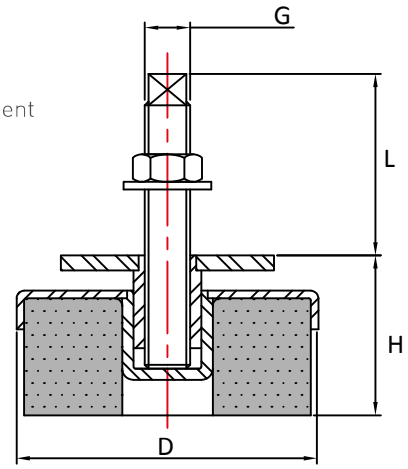
Max compression load in Kg deflection in mm.

Adjustable Levelling Feet

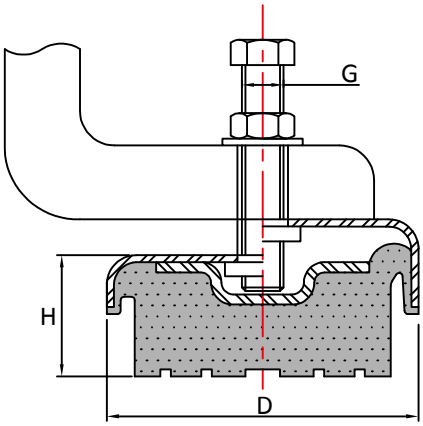
Levelling Feet are simple, low cost products suitable for most types of machinery. They allow machinery to be levelled and also provide a degree of vibration and noise reduction. The KA and MFL mountings have an integral levelling feature.

Applications:

- Machine tools
- Lathes; Presses
- Heavy industrial equipment
- Conveyors
- Food processing



Part No	D	H	G	L	Max Load (kg)
MFL-1	80	38-48	M12	65-75	500
MFL-2	120	43-55	M16	68-80	1000
MFL-3	160	48-53	M20	110-125	2000
MFL-4	200	56-61	M20	110-125	5500



Part No	D	H	G	Max Load (kg)
KA01	80	32	M10/M12/M16	300
KA090	90	35	M12	400
KA05	120	35	M12/M16	800
KA02	150	40	M16	1000
KA16	160	40	M16/M20	1500
KA03	200	45	M20	3000

The KA Adjustable Levelling Feet are supplied without fixings

Max compression load in Kg deflection in mm.

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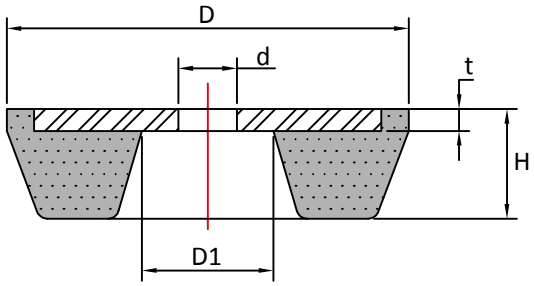
Anti-Vibration Rubber Feet

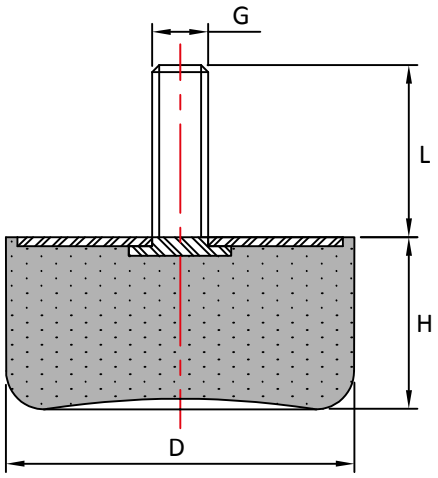
Simple, economical and easy to install. Noise and Vibration Reduction Feet consist of a specially designed angled rubber section bonded to a steel plate. The Profile of the rubber base provides good levels of vibration reduction and increases the friction with the floor to stop equipment from "walking" during excessive vibration.

Applications:

- Scales and Weighing Equipment
- Portable Appliances
- Industrial and Domestic Equipment



Part No	D	D1	d	H	t	Max Load (kg)
NVF75	55	18	8	15	3	150
NVF250	75	25	10	17	4	400
NVF750	115	40	14	24	4	1100



Part No	D	H	G	L
1514MRF13	15	14	M4	13
2024MFR18	20	23.5	M6	18
2519MRF18	25	18.5	M6	18
3029MRF20	30	28.5	M8	20
4028MRF10	40	28	M8	10
5028MRF33	50	28	M10	33
7043MRF28	70	43	M10	28
7537MRF37	75	37	M12	37

Max compression load in Kg deflection in mm.

KG Block

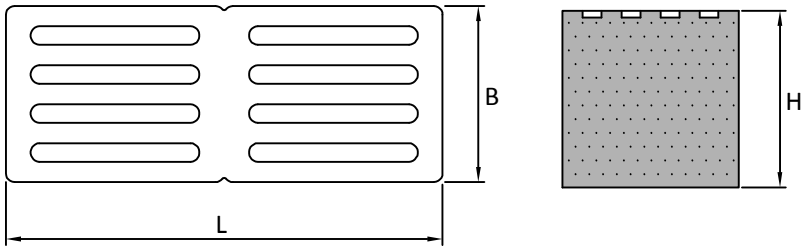
KG Blocks are typically used for isolating Heavy Machinery from a buildings structure. They provide high levels of flexibility in both the vertical and horizontal direction, making them particularly suited to Low Frequency equipment. The design of the rectangular section allows them to be fitted under structural frames.

Advantages:

- Isolates Low Frequency Machines
- Ideal for Isolating Structures
- Wide Load Range

Applications:

- Floating Structures
- Concrete Inertia Bases
- Heavy Industrial Machinery
- Manufacturing Plants



Part No	L	B	H	Max Load (kg)
KG0-40	195	175	150	1,800
KG0-60	195	175	150	3,800
KG1-40	400	175	150	4,000
KG1-60	400	175	150	8,000

Max compression load in Kg deflection in mm.

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Spring Mountings

Spring Mountings are a High Performance Product, capable of achieving up to 99% Vibration Reduction. They are suitable for mounting Industrial Machinery, Power Generation, HVAC and Building Services Equipment, and come in two distinct types;

Enclosed Spring Mountings

Enclosed Spring Mountings consist of steel coil springs mounted within a steel cup. The Steel cup controls the lateral movement of the mounted equipment and also contains a snubbing ring to control start-up and shut-down movements. Ideal for Industrial Machinery. The mountings are supplied with a top fixing bolt to allow for levelling after installation, and can be supplied with an oil resistant anti-slip pad under the steel base.

Open Spring Mountings

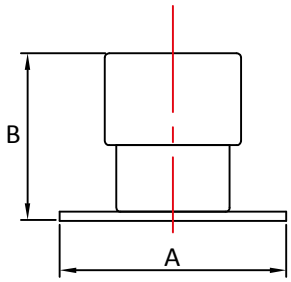
Open Spring Mountings consist of a single coil spring mounted onto a fixing plate. They provide excellent vibration reduction properties, particularly for slow speed equipment such as Fans and HVAC equipment. The mountings can be supplied with an oil resistant anti-slip pad under the steel base.

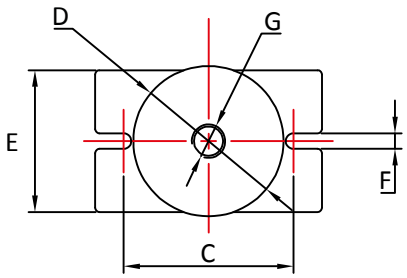
Applications:

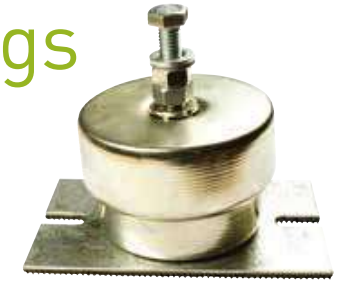
- Static Generating Sets
- HVAC (Fans, Pumps, AHU, Chillers)
- Slow Speed Equipment
- School, Hospital and Residential Installations

Max compression load in Kg deflection in mm.

Enclosed Spring Mountings

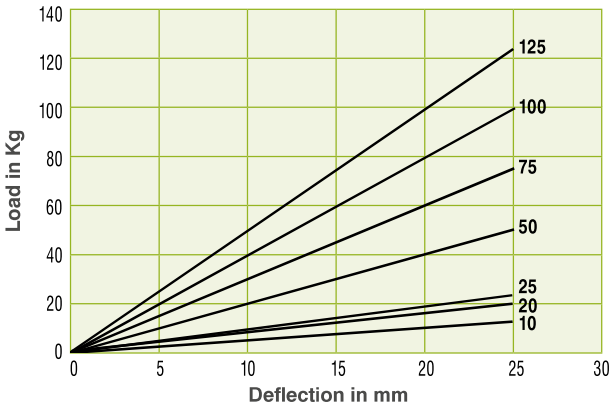




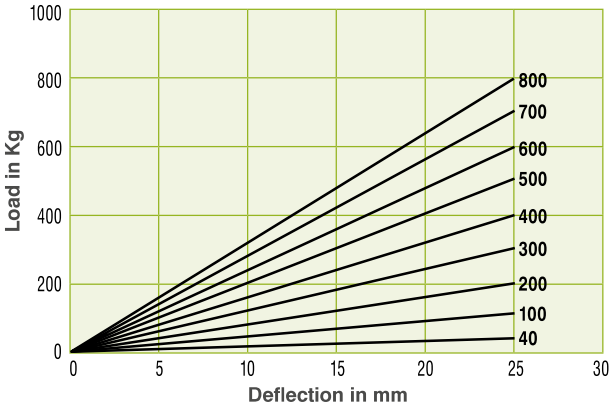


Part No	A	B	C	D	E	F	G
ESS	75	73	59	55	40	10	M8
ESM	150	79	120	105	100	10	M12
ESL	230	80	200	175	150	12	M12
ESL-HD	230	133	200	175	150	12	M12

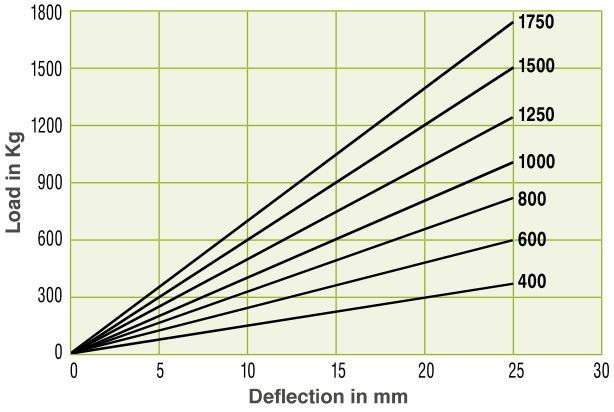
ESS



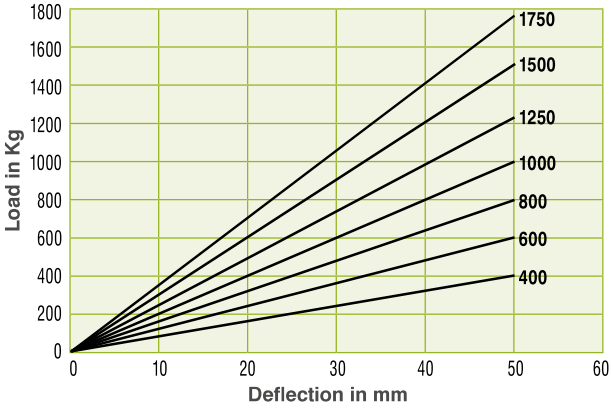
ESM



ESL



ESL-HD



For normal working conditions it is recommended the mountings are loaded to a maximum of 20mm deflection (or 40mm ESL-HD version).

Max compression load in Kg deflection in mm.

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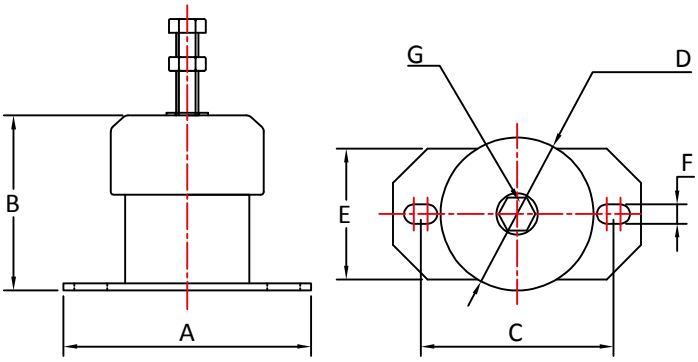
Enclosed Spring Mountings



Part No	A	B	C	D	E	F	G	Max Load (kg)	Deflection (mm)
ESS20/10	76	63	54-60	48	38	6.5	M8	10	20
ESS20/15								15	20
ESS20/20								20	20
ESS20/40								40	20
ESS20/70								70	20
ESS15/100								100	15
ESM25/30	110	89	85-90	78	70	9	M10	30	25
ESM25/60								60	25
ESM25/100								100	25
ESM25/160								160	25
ESM25/250								250	25
ESL25/100	180	127	130-150	111	95	13.5	M16	100	25
ESL25/200								200	25
ESL25/300								300	25
ESL25/400								400	25
ESL25/500								500	25
ESL25/600								600	25
ESL25/700								700	25
ESL25/800								800	25
ESL25/1000								1000	25
ESL25/1200								1200	25
ESL25/1400								1400	25

Max compression load in Kg deflection in mm.

Enclosed Spring Mountings Installation Instructions

The Enclosed Spring Mountings are suitable for static applications and incorporate a height adjusting device to allow the machine to be levelled during installation. Where possible mountings should be fitted on site, alternatively transit chocks should be fitted to the equipment during transportation.

The height adjusting bolts should be removed and all mountings placed in their correct floor position. The machine is now lowered into position, ensuring correct alignment of mounting fixing holes with brackets.

With lock nuts and washers fitted to the height adjusting bolts, they can now be screwed into the mounting fixing holes until a resistance is encountered.

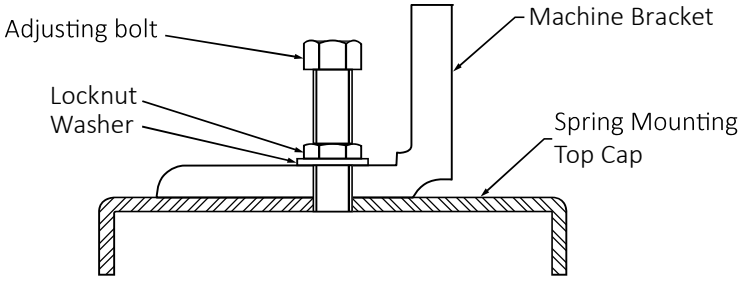
The level of the machine can now be checked and if needed adjusted by screwing down the height adjusting bolts one or two turns at a time, in sequence at each mounting. When complete, the lock nuts should be locked in position.

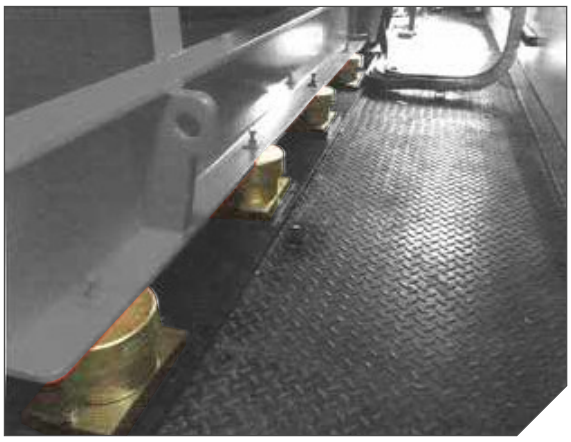
If during start up or shut down the movement of the machine is considered excessive, snubbing of the movement can be increased by screwing down the height adjusting bolts by equal amounts, one or two turns at a time, thereby raising the height of the mounting top cap which reduces the gap with the internal snubber ring.

Mountings should not be raised above their nominal unloaded height, if additional adjustment is required packing should be fitted to the top or to the bottom of the mounting.

For the mountings to isolate efficiently it is important that all connections and services to the machine should be flexible. The maximum hole size in the machine bracket should not give more than 2mm clearance on the bolt size. If the hole is larger, a suitable packing washer should be fitted below the machine bracket.

The Enclosed Spring mountings are pre-loaded during the manufacturing process and therefore have a nominal preload deflection. The deflections shown on the data sheet are "effective deflections" used for calculating the performance and percentage isolation. The actual deflection under load will be the effective deflection minus the preload.





Max compression load in Kg deflection in mm.

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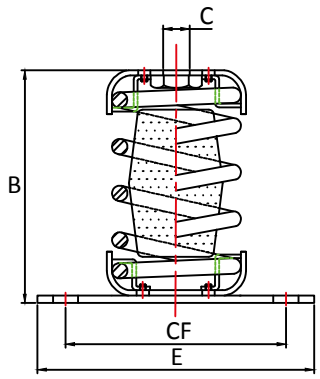
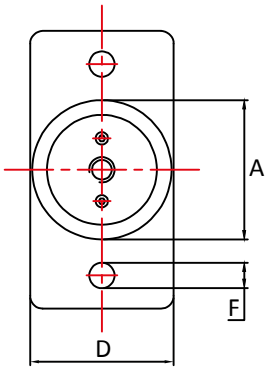
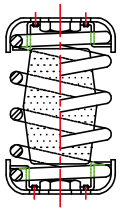
Open Spring Mountings

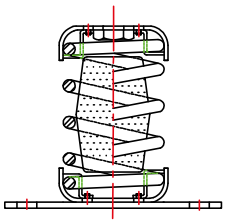






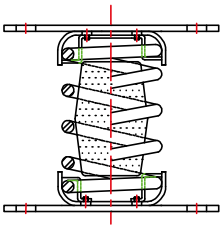
Type A

Part No	Type	A	B	C	CF	D	E	F	Max Load (kg)	Deflection
OSM5-A	A	51	70	M8	-	-	-	-	5	23
OSM15-A	A	51	70	M8	-	-	-	-	15	23
OSM25-A	A	51	70	M8	-	-	-	-	25	23
OSM50-A	A	51	70	M8	-	-	-	-	50	23
OSM75-A	A	51	70	M8	-	-	-	-	75	23
OSM100-A	A	51	70	M8	-	-	-	-	100	23
OSM125-A	A	51	70	M8	-	-	-	-	125	23



Type B

OSM5-B	B	51	72	M8	80	70	106	11x16	5	23
OSM15-B	B	51	72	M8	80	70	106	11x16	15	23
OSM25-B	B	51	72	M8	80	70	106	11x16	25	23
OSM50-B	B	51	72	M8	80	70	106	11x16	50	23
OSM75-B	B	51	72	M8	80	70	106	11x16	75	23
OSM100-B	B	51	72	M8	80	70	106	11x16	100	23
OSM125-B	B	51	72	M8	80	70	106	11x16	125	23
OSMHD100-B	B	69	113	M12	96	86	128	11x20	100	25
OSMHD125-B	B	69	113	M12	96	86	128	11x20	125	25
OSMHD150-B	B	69	113	M12	96	86	128	11x20	150	25
OSMHD200-B	B	69	113	M12	96	86	128	11x20	200	25
OSMHD250-B	B	69	113	M12	96	86	128	11x20	250	25
OSMHD300-B	B	69	113	M12	96	86	128	11x20	300	25
OSMHD400-B	B	69	113	M12	96	86	128	11x20	400	25
OSMHD500-B	B	69	113	M12	96	86	128	11x20	500	25
OSMHD600-B	B	69	113	M12	96	86	128	11x20	600	25
OSMHD700-B	B	69	113	M12	96	86	128	11x20	700	23
OSMHD800-B	B	69	113	M12	96	86	128	11x20	800	23



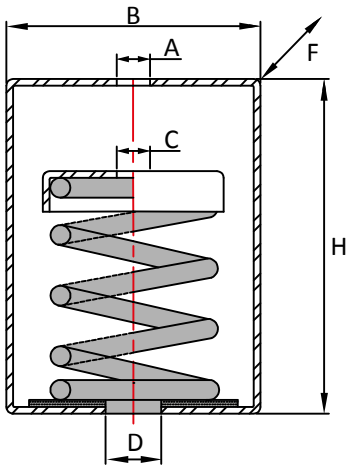
Type C

OSM5-C	C	51	73	-	80	70	106	11x16	5	23
OSM15-C	C	51	73	-	80	70	106	11x16	15	23
OSM25-C	C	51	73	-	80	70	106	11x16	25	23
OSM50-C	C	51	73	-	80	70	106	11x16	50	23
OSM75-C	C	51	73	-	80	70	106	11x16	75	23
OSM100-C	C	51	73	-	80	70	106	11x16	100	23
OSM125-C	C	51	73	-	80	70	106	11x16	125	23
OSMHD100-C	C	69	115	-	96	86	128	11x20	100	25
OSMHD125-C	C	69	115	-	96	86	128	11x20	125	25
OSMHD150-C	C	69	115	-	96	86	128	11x20	150	25
OSMHD200-C	C	69	115	-	96	86	128	11x20	200	25
OSMHD250-C	C	69	115	-	96	86	128	11x20	250	25
OSMHD300-C	C	69	115	-	96	86	128	11x20	300	25
OSMHD400-C	C	69	115	-	96	86	128	11x20	400	25
OSMHD500-C	C	69	115	-	96	86	128	11x20	500	25
OSMHD600-C	C	69	115	-	96	86	128	11x20	600	25
OSMHD700-C	C	69	115	-	96	86	128	11x20	700	23
OSMHD800-C	C	69	115	-	96	86	128	11x20	800	23

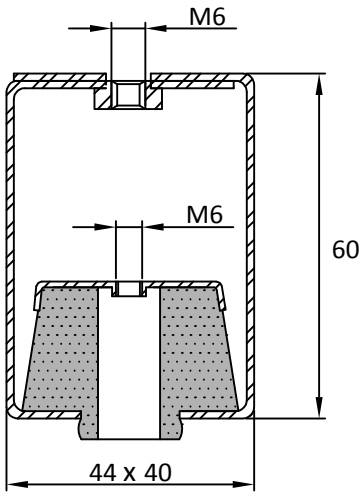
Max compression load in Kg deflection in mm.

This information is for guidance only. Customers are recommended to contact us for further technical information on products and applications.
We reserve the right to alter specifications or withdraw products without notice.

Hangers



Part No	B	F	H	A	D	C	Defl. mm	Max Kg
TM 25	75	55	100	12	30	11	24	25
TM 50	75	55	100	12	30	11	24	50
TM 75	75	55	100	12	30	11	24	75
TM 100	75	55	100	12	30	11	24	100
TM 150	120	75	155	16	16	14	35	150
TM 250	120	75	155	16	16	14	35	250
TM 350	120	75	155	16	16	14	35	350



Part No	Min kg	Max Kg
TVAR 40	8	25
TVAR 60	18	50
TVAR 75	25	75

Max compression load in Kg deflection in mm.

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Wire Rope Shock Mountings

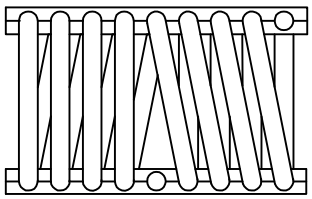
Wire Rope Shock mountings are an "All Metal" design, providing multidirectional absorption of High Level Shock and Vibration. The all-metallic design allows these mountings to be used in extremely harsh conditions, including corrosive and high temperature environments.

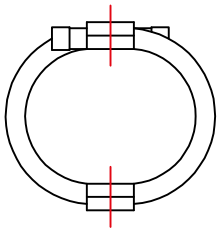
The mountings can be manufactured in various designs and configurations, where the wire rope can be produced in Galvanised Steel or Stainless Steel, with load ranges from 0.1Kg to 5000Kg. Non-Magnetic Versions available on request.

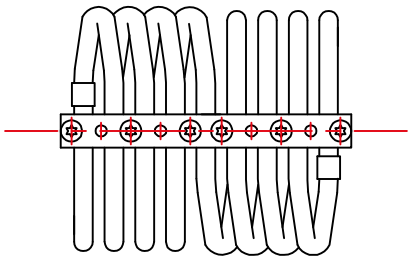
Applications:

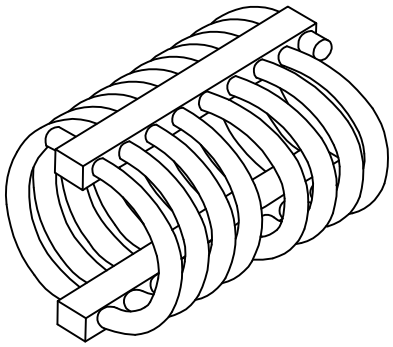
- Naval Vessels
- Military & Defence
- Aerospace
- Transit Packaging

Please contact the **AV Technical Team** to discuss your requirements.









Max compression load in Kg deflection in mm.

INDUSTRIAL PRODUCTS

Notes

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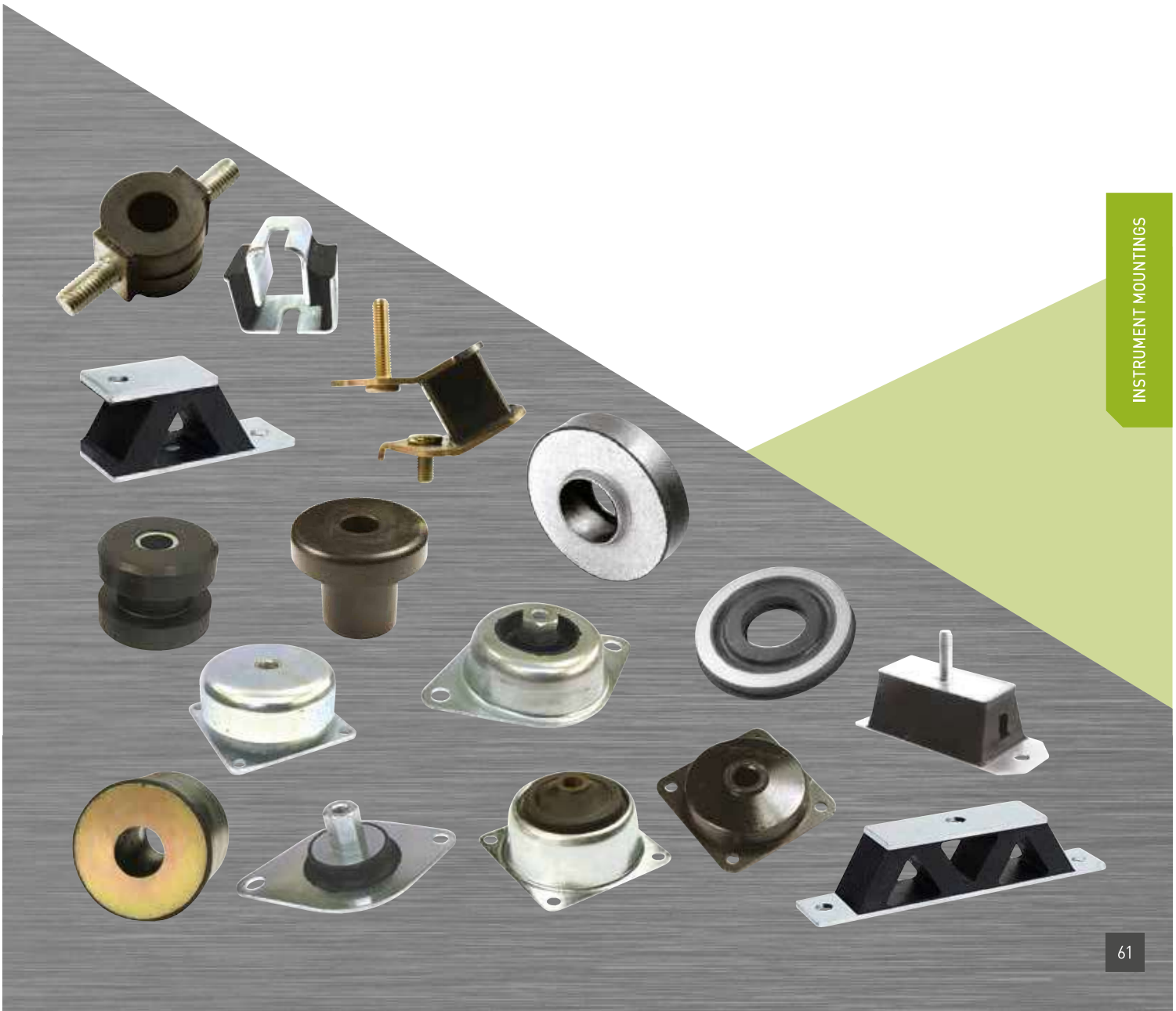
INDUSTRIAL PRODUCTS

Instrument Mountings



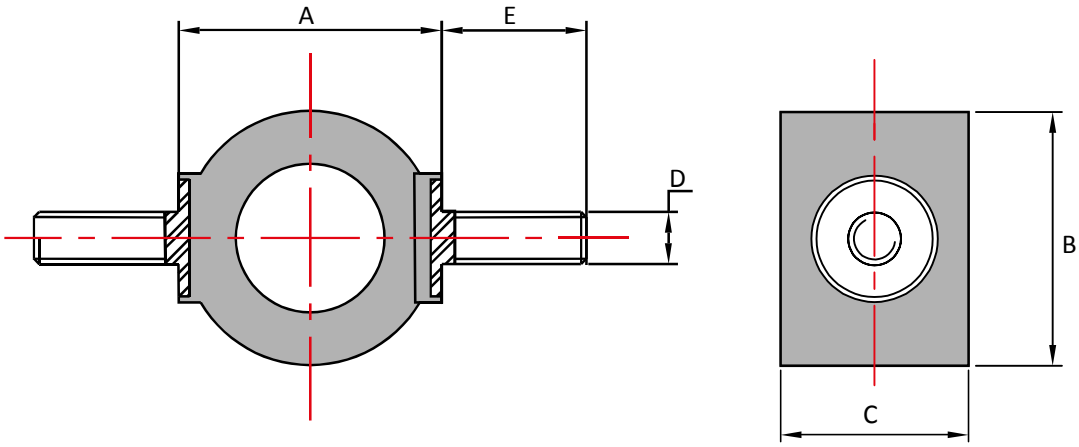
Low Frequency Mountings

High performance mountings for lightweight equipment. They are designed to give high levels of deflection under light loads, providing a low natural frequency and high levels of vibration isolation – both Active & Passive. They can be used in either compression, shear or a combination.

High Temperature & Oil Resistant Rubbers available on request.

Applications:

- Precision Equipment
- Sensitive Instruments
- Lightweight Machines
- Medical Equipment
- Sensors & Gauges



Part No	A	B	C	D	E
LF0912	12.5	9.5	9.4	M4	10
LF1394	17	14	14	M4	10
LF1395	30	25	19	M5	10
LF1396	38.5	35	25	M6 (*M10)	16

* Alternative Stud Size

Max compression load in Kg deflection in mm.

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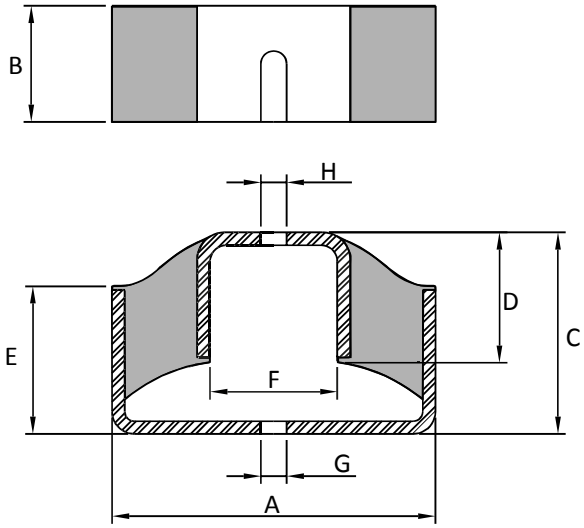
UU Shear Mountings

UU Shear mountings are designed to load the rubber in shear and thereby provide a soft vertical spring rate and high levels of vibration absorption.

They are also suitable for absorbing shock. They fall within two distinct ranges, those that have zinc plate metals and those that have the metals fully encapsulated in rubber.

Applications:

- Small Generators
- Fans
- Sensitive instruments & Apparatus
- Low Speed Machines
- Shock Protection



Part No	A mm	B mm	C mm	D mm	E mm	F mm	G & H mm	Max Load kg	Deflection mm
UU1492-40	61	20	43	25	27	20	6.6	14	8.0
UU1492-50								17	7.0
UU1482-40	60	50	43	19	30	17	10	43	8.0
UU1482-50								50	7.5
UU1481-40	70	25	62	37	43	25	10	17	8.0
UU1481-50								25	7.0
UU1481-60								28	4.5
UU1480-40	80	50	78	50	55	30	13	72	8.0
UU1480-50								92	7.0
UU1480-60								95	4.5
UU1479-40	86	64	108	76	82	38	16	152	8.0
UU1479-50								170	6.0
UU1479-60								205	4.0

Part No	A mm	B mm	C mm	D mm	E mm	F mm	G & H mm	Max Load kg	Deflection mm
UU20-40*	90	20	50	34	34	39	10	20	6.0
UU20-60*								35	5.0
UU20-70*								50	5.0
UU50-40*	90	50	50	34	34	39	12	60	6.2
UU50-60*								110	5.6
UU50-70*								160	5.6
UU100-40*	90	100	50	34	34	39	15	130	6.8
UU100-60*								250	6.8
UU100-70*								360	6.8

*Full encapsulated with rubber

Max compression load in Kg deflection in mm.

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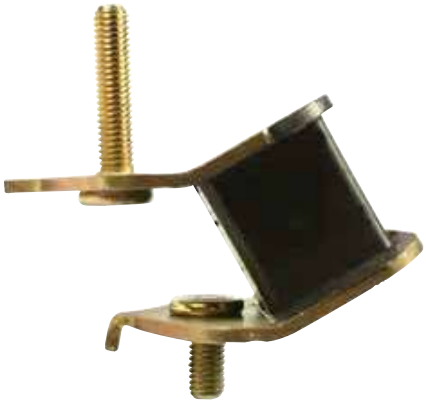
We reserve the right to alter specifications or withdraw products without notice.

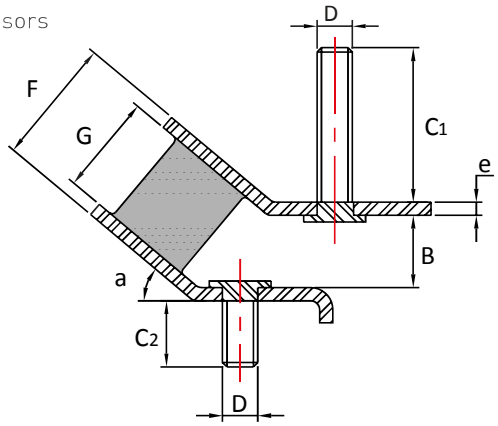
Angle Mountings

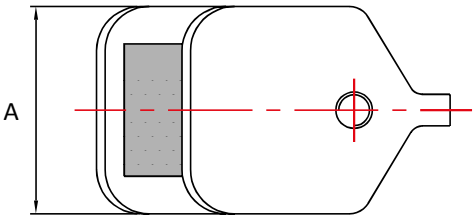


Angle Mountings are used in pairs – diametrically opposite to give a low roll frequency and hence improved vibration isolation whilst maintaining good stability of the equipment.

Applications:

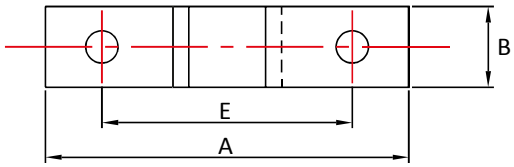
- Portable Generators
- Compressors
- Pumps

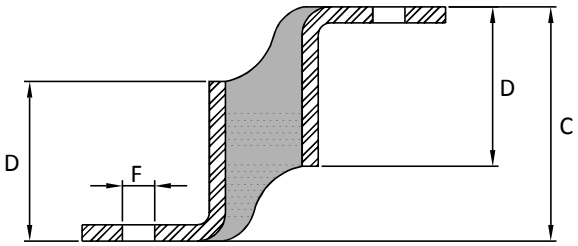




Part No	A	B	D	C_1	C_2	e	a	F	G	45° Shore A		60° Shore A	
										Kg	mm	Kg	mm
AM47	47	17	M8	35	15	3	40°	29	23.0	5	5	15	5
AM54	54	19	M8	35	15	3	40°	37	31.0	40	9	90	9

L Shear Mountings





Part No	A	B	C	D	E	F	Max Load (kg)		
							40° Shore A	60° Shore A	70° Shore A
L20-2	90	20	58	40	62	8	12	27	39

Max compression load in Kg deflection in mm.

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W & V Mountings

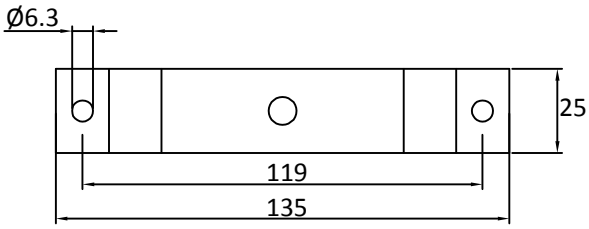
W and V type mountings are ideal for use in both compression and shear.
The profile of the rubber section allow for high levels of deflection to be achieved at low loads.

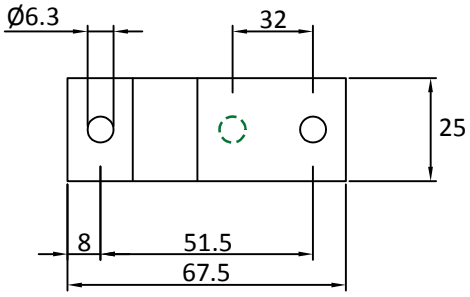
Advantages:

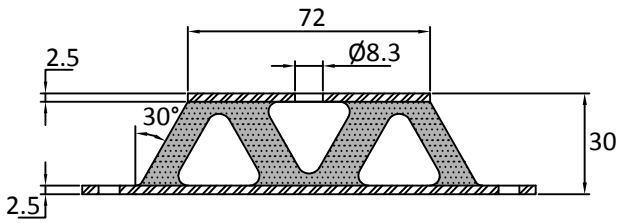
- Ideal for Lightweight Equipment
- Protect Sensitive Equipment from Shock
- Easy to Install

Applications:

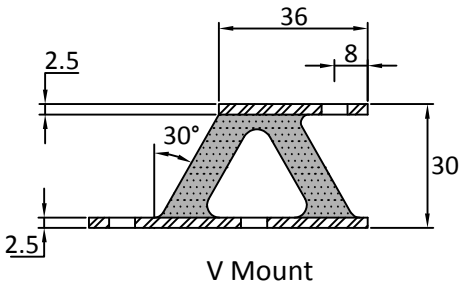
- Small Generators
- Slow Speed Machines (Fans etc)
- Electronics
- Shock Protection Units







W Mount



V Mount

Part No	Compression		Shear	
	Max Load Kg	mm	Max Load Kg	mm
W7230-40	40	5	19	10
W7230-55	65	5	30	10
W7230-70	100	5	48	10
V3630-40	17	5	7.5	10
V3630-55	30	5	19	10
V3630-70	40	4.8	25	10

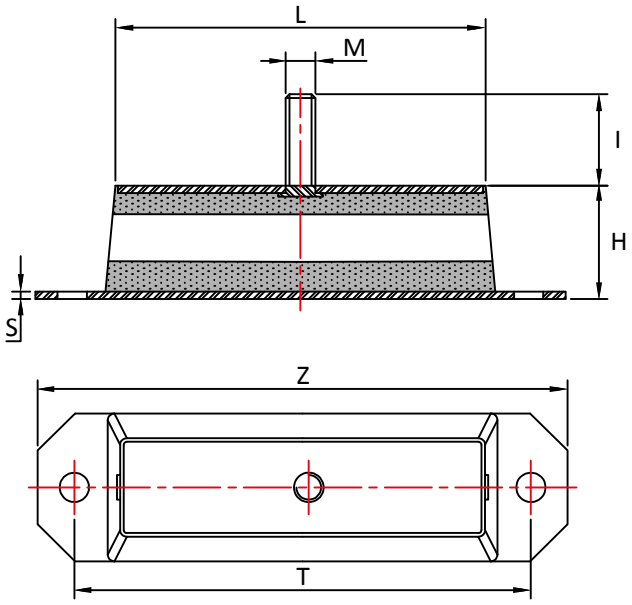
Max compression load in Kg deflection in mm.

SF Mountings

A general purpose and versatile anti-vibration mounting which can be used in a variety of different applications. The circular relief within the rubber section enables the SF mountings to provide good levels of vibration attenuation and shock absorption.

Applications:

- Diesel engines
- Pumps
- Compressors
- Motors
- General industrial machinery



Part No	Z	L	T	H	M	I	S	Max Load Kg
SF50	115	50	85	45.7	M12	37	3	150
SF100	165	100	135	45.7	M12	37	3	320
SF150	215	150	185	45.7	M12	37	3	460
SF200	265	200	235	45.7	M12	37	3	620

Max compression load in Kg deflection in mm.

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Cup Shock Mountings

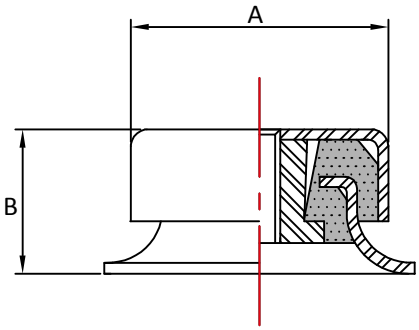
Cup Shock mountings are a relatively stiff product, ideal for applications where high frequency vibrations are predominant. The product is failsafe and ideal for both mobile and static applications. The outer metal cap offers protection from contaminants such as Oil and Fuel. The design of the mounting also allows the product to be used in tension, although maximum loads should be derated.

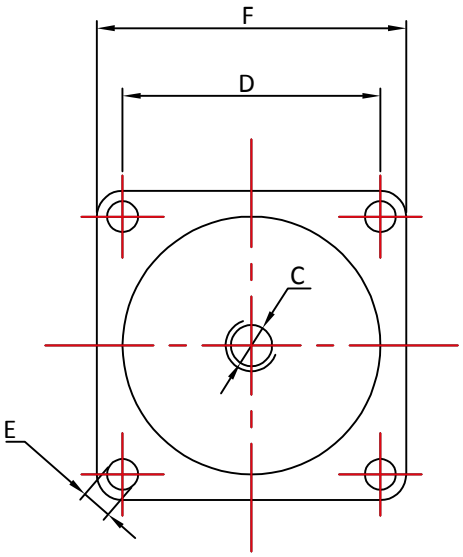
Advantages:

- Failsafe Design
- Ideal for High Frequency Vibration
- Excellent Shock Absorption
- Can be used in Compression or Tension

Applications:

- Military Equipment
- Electronics
- HVAC
- Motors & Compressors





Part No	A	B	C	D	E	F
CSM1000	50	28	M8	50	6	60
CSM2000	76	38	M10	63.5	6.7	76

Part No	45 Shore A		60 Shore A		75 Shore A	
	KG	mm	KG	mm	KG	mm
CSM1000	80	2	100	1.5	150	1.5
CSM2000	180	2.5	240	2.5	300	2.0

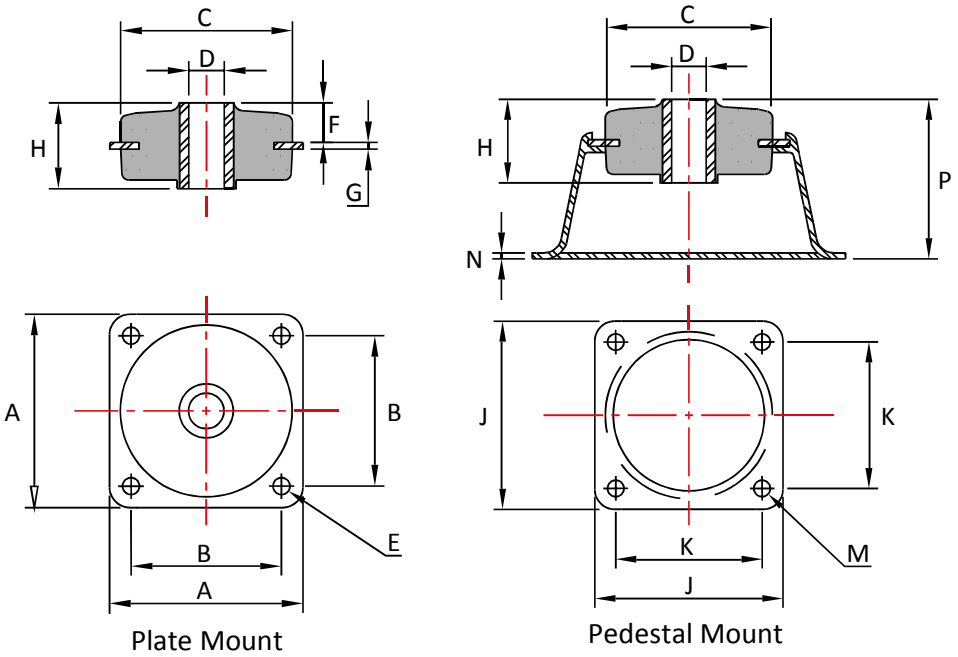
Max compression load in Kg deflection in mm.

Plate and Pedestal Mountings

Plate & Pedestal mountings are ideal for lightweight equipment due to their low stiffness. They are available as either a "Plate Mounting" or "Pedestal Mounting" option, and can be made failsafe by fitting top and bottom washers.

Applications:

- Control Panels
- Sensitive Instruments
- Radiators
- Marine Equipment
- Fans
- Blowers



Part No	A	B	C	D	E	F	G	H	J	K	M	N	P
PL1800	31.75	25.4	25.4	4.20	3.60	6.70	0.80	10.3	-	-	-	-	-
PL1801	44.5	34.9	38.1	6.5	4.2	8.9	1.3	15.9	-	-	-	-	-
PL1802	57.2	44.5	50.8	9.9	5.0	13.5	1.5	25.4	-	-	-	-	-
PE1803	-	-	25.4	4.20	-	-	-	10.3	42.9	34.9	3.60	0.60	19.8
PE1804	-	-	38.1	6.5	-	-	-	15.9	60.3	49.2	5.0	0.8	28.6
PE1805	-	-	50.8	9.9	-	-	-	25.4	76.0	63.5	6.5	0.94	39.7

Part No		Maximum Load (kg)	Deflection (mm) at Maximum Load
Plate	Pedestal		
PL1800-45	PE1803-45	0.91	1.6
PL1800-60	PE1803-60	1.8	1.6
PL1801-45	PE1804-45	2.7	2.5
PL1801-60	PE1804-60	5.4	2.5
PL1801-70	PE1804-70	8.2	2.5
PL1802-45	PE1805-45	14	3
PL1802-60	PE1805-60	23	3
PL1802-70	PE1805-70	40	3

Max compression load in Kg deflection in mm.

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Suspended Mounts

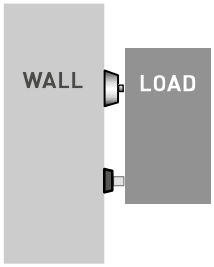
The Suspended Mountings are ideal for hanging or suspending equipment from walls, vertical surfaces, ceilings or supporting structures. The HNG Upper is used to accommodate tensile mounted loads at the top fixing of the equipment, whilst the HNG Lower is used to accommodate the compressive loads at the bottom of the equipment.

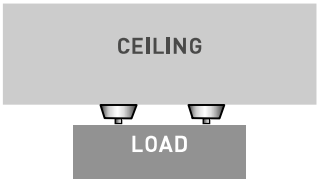
Advantages:

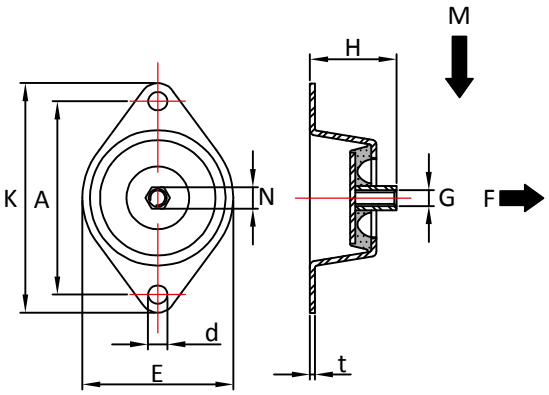
- Fail Safe Design
- Easy to Install
- Suspends from Ceilings & Walls

Applications:

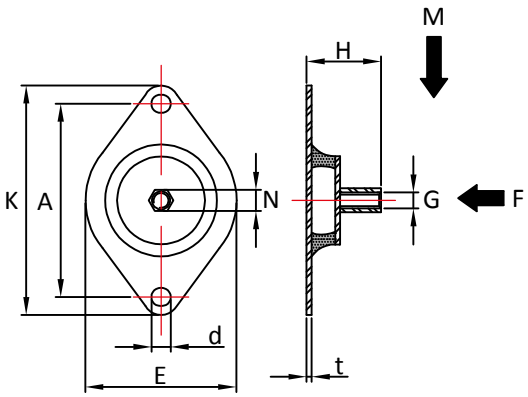
- HVAC
- Ducting and Pipework
- Instrument Cabinets
- Control panels







HNG-upper



HNG-lower

TYPE	E	K	A	H	d	N	t	G
HNG-upper	75	114	96	33	9	15	2.5	M8
HNG-lower	75	114	96	33	9	15	2.5	M8

TYPE	M-Max (KG)		F-Max (KG)	
	40° Sh	60° Sh	40° Sh	60° Sh
HNG-upper	14	25	30	70
HNG-lower	14	25	30	70

Max compression load in Kg deflection in mm.

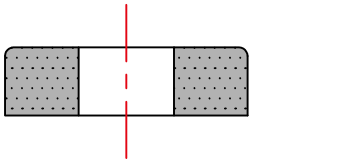
Two Piece Mountings

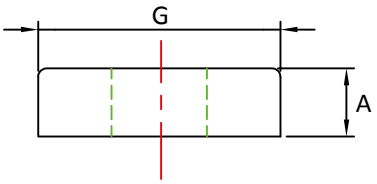
Two Piece mountings are an ideal product for reducing vibration and accommodating high shock forces. They are also used to allow flexibility within an installation to reduce stress on brackets and fabrications.

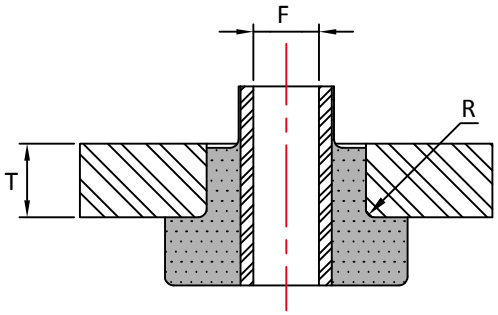
Two Piece mountings are suitable for both Static and Mobile applications, and should be installed with top and bottom washers to provide a failsafe installation.

Applications:

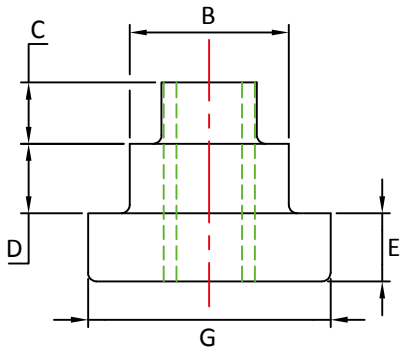
- Construction Equipment
- Power Generation
- Military Vehicles
- Off-Road Vehicles
- Agricultural Equipment
- Radiators







Typical Installation



Part No	A	B	C	D	E	F	G	R	Tmax	Tmin	Max Load (at Tmax)	
											45° Shore A	60° Shore A
TP3035	12.3	20.1	10.3	9.3	12.3	10.3	33	1	9.5	9.5	40	110
TP4850	20	31	19	10	20	13.5	47.5	1.5	14	12.5	80	130
TP2203	22.5	39.5	24	15	23	16.5	64	2.5	22	19	120	260
TP9075	25	58.4	26.5	22	25	24.1	89	3	28.6	25.4	260	450
TP3520	7.5	22.6	5	4.9	7.5	10.35	35	1	6	6	42	84
TP3520W10*	9	22.6	6.5	3.5	9	10.2	35	2	4	4	42	84
TP3025	12.3	20.1	10.3	2.5	12.3	10.3	33	1	5	5	35	75

*with intergrated bonded washers

Max Load should be derated by 25% for off highway and high dynamic applications

Max compression load in Kg deflection in mm.

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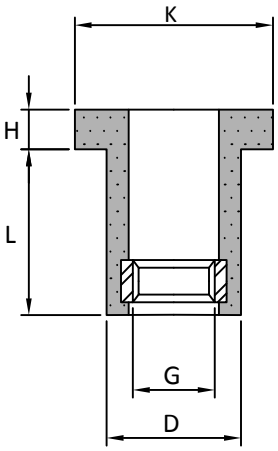
Grommet Mountings

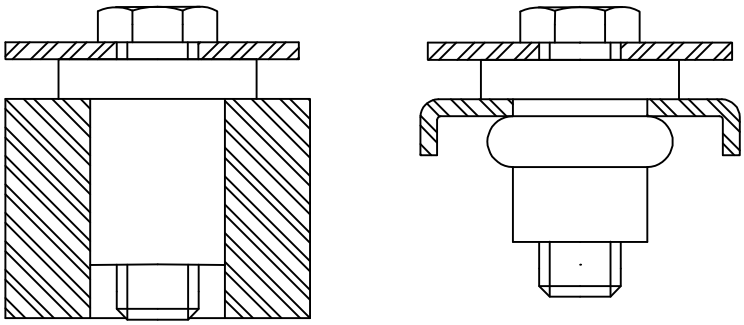
Grommet mountings are normally used as a simple fastening method or to isolate high frequency vibrations. They can be installed in several configurations, such as through brackets or into blind holes, as can be shown in the below Installation diagram.

Applications:

- Vehicle & Machinery Body Panels
- Motorcycle Fairing
- Lightweight Equipment
- Electronics & CPU's
- Sensors & Gauges



Installation Options



Part No	D	K	L	H	G
GM09	7.2	9	9	2.5	M3
GM12	9.3	12	11.5	3	M4
GM15	10.2	15	14.5	3.5	M5
GM18	12.7	18	17	4	M6
GM24	16.5	24	22	5	M8

Max compression load in Kg deflection in mm.

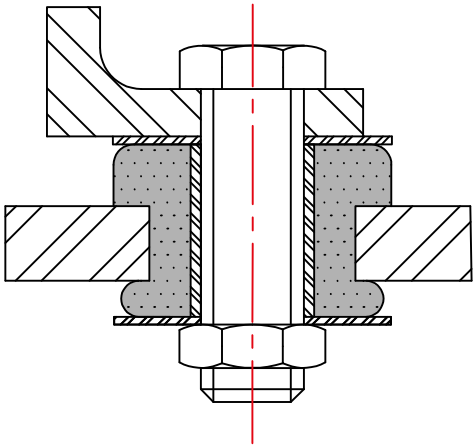
T-Bushes

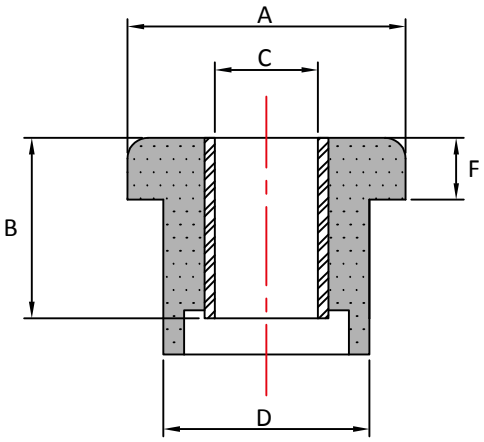
T-Bushes offer a low cost solution for isolating vibration, reducing structure borne noise, and absorbing shock forces for both mobile & static applications. Using Overload and Rebound washers provide a failsafe installation. The mountings also have the benefit of a low profile height.

Applications:

- Fuel Tanks
- Radiators
- Pumps
- Industrial Equipment

Installation





Part No	A	B	C	D	F	Kg	mm
TB25	27	17.5	10	20	6	50	0.7
TB12	31.8	27.2	10.2	24.1	14	50	1.4
TB45	43	25	13	31	10	100	1.2
TB50	49	35	13	34	13	200	1.6
TB60	63	30	16	41	15	250	2
TB65	63	44	16	41	15	250	2
TB75	75.5	50.8	16.3	50.3	20.6	340	2.16
TBCBA20	50.8	36.8	13.5	35.1	19.1	181	2.5
TBCBA24	59.7	38.1	16	38.1	17.5	295	2.5
TBCBA28	71.1	41.4	20	41.1	17.5	476	2.5
TBCBA33	83.8	49.3	20	41.1	22.4	725	3

Max compression load in Kg deflection in mm.

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Armoured Plate Two Piece

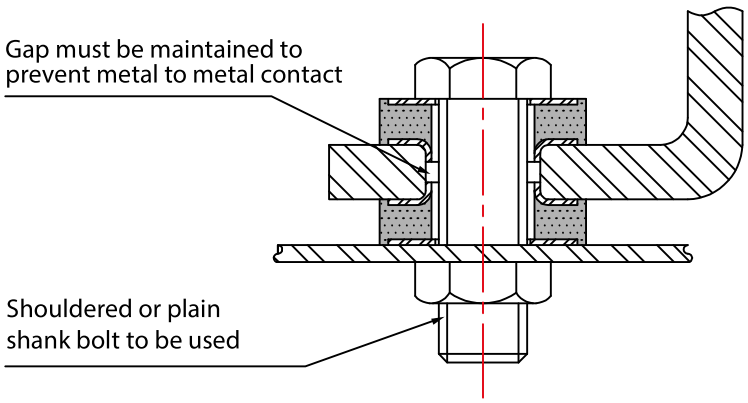
Amoured Plate Mountings are used to allow flexibility within an installation and reduce stress on brackets and fabrications. They are typically used in pairs, on opposing sides of a bracket, to allow for vibration isolation in the positive and negative direction.

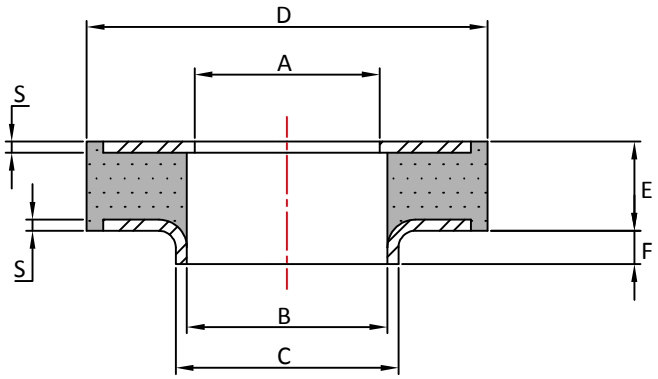
The mountings have an integral wear plate that avoids premature failure due to frictional wear between the rubber and the mounting bracket. It is recommended that a shouldered or plain shank bolt is used to ensure that mounting is not over-compressed during assembly.

Applications:

- Construction Equipment
- Power Generation
- Military Vehicles
- Off-Road
- Agricultural
- Radiators

Installation





Part No	Dimensions in mm							Compression Max Load (kg)		
	D	A	B	C	E	F	S	45° Shore A	60° Shore A	70° Shore A
ATP3615166	36	6	6	15	16	6	1	97	163	265
ATP3615106	36	6.2	6.2	15	10	6	1	97	163	265
ATP362083	36	16.6	16.6	20	8	3	1	66	112	183
ATP361883	36	16.6	18	20	8	3	1	66	112	183
ATP3618104	36	8.5	12	18	10	4	1	71	122	194
ATP50241210	50	16.5	20	24	12	10	1.5	138	234	377
ATP50241212	50	16.5	22	24	12	12	1	138	234	377
ATP60271310	60	20.5	24	27	13	10.5	1.5	224	387	622
ATP6027134	60	20.5	24	27	13	4	1.5	224	387	622
ATP6027304	60	20.5	24	27	30	4	1.5	224	387	622

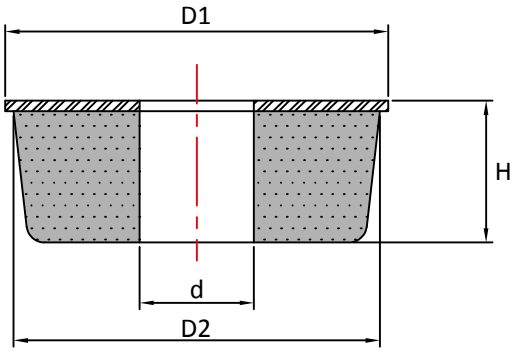
Max compression load in Kg deflection in mm.

Ring Elements

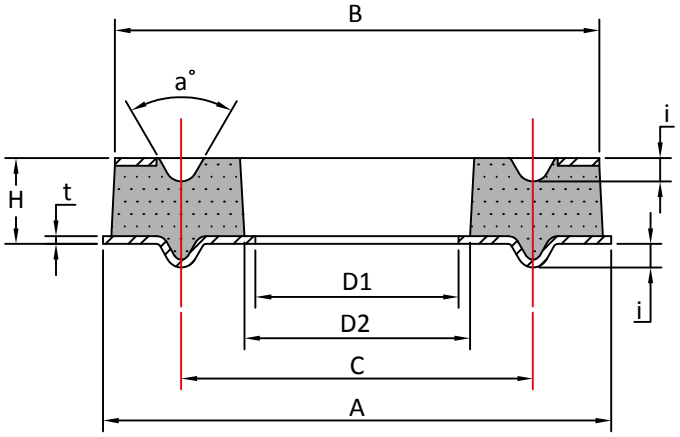
Ring Elements offer a versatile and cost effective mounting solution to absorb shock and reduce vibration. They are available in a variety of sizes, rubber compounds, mild and stainless steel metals.

Applications:

- Bump stops for General Industrial Machinery
- Pump & Compressor Feet
- Commercial & Off-Road Vehicles



Part No	D1	D2	d	H	Max Load (kg)
4223TRB18	42	40	18	23	163.0
6233TRB21	62	60	21	33	493.0
7233TRB21	72	70	21	33	610.0
8240TRB25	82	80	25	40	1319.0
10254TRB32	102	100	32	54	1619.0
12246TRB38	122	120	38	46	1935.0



Part No	A	D1	B	D2	C	H	t	i	a°
RE6511	65	26	62	29	46	11	1	2.5	60
RE10027	100	35	90	40	65	27.5	1.5	3.5	60
RE11020	110	30	102	38	76	20.8	1.75	3.5	60
RE11025	110	30	102	38	76	25.8	1.75	3.5	60
RE11015	110	40	102	44	76	15.8	1.75	3.5	60
RE15316	153	55	145	60	102	16	2	5	60
RE15330	153	55	145	60	102	30	2	5	60

Max compression load in Kg deflection in mm.

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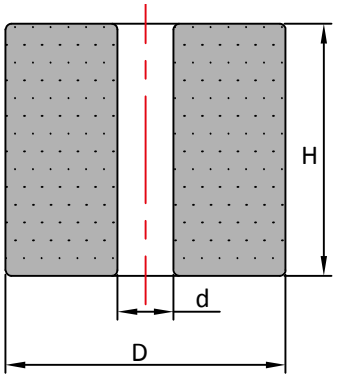
Ring Elements

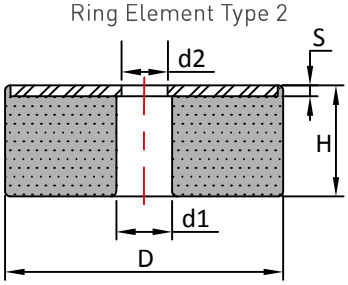
Ring Element Type 1



Part No	D	d	H
RE1/8.5/3.2-3.5	8.5	3.2	3.5
RE1/13/6.5-12	13	6.5	12
RE1/17.5/9-16	17.5	9	16
RE1/19/13-19	19	13	19
RE1/20/8.5/15	20	8.5	15
RE1/25/8.5-25	25	8.5	25
RE1/25/10.5-25	25	10.5	25
RE1/25/10.5-15	25	10.5	15
RE1/28/10.5-50	28	10.5	50
RE1/28/8-16	28	8	16
RE1/30/16-40	30	16	40
RE1/32/13.5-32	32	13.5	32
RE1/40/9-30	40	9	30
RE1/40/12-25	40	12	25
RE1/40/12-35	40	12	35
RE1/40/12-65	40	12	65
RE1/40/13-30	40	13	30
RE1/40/13.5-32	40	13.5	32
RE1/40/13.5-40	40	13.5	40
RE1/40/13.5-50	40	13.5	50
RE1/40/17-30	40	17	30
RE1/47/20-50	47	20	50
RE1/48/17-100	48	17	100
RE1/50/17-25	50	17	25
RE1/50/17-40	50	17	40
RE1/50/10-45	50	10	45
RE1/50/14-80	50	14	80
RE1/50/17-32	50	17	32
RE1/50/17-50	50	17	50
RE1/50/17-63	50	17	63
RE1/50/17-80	50	17	80
RE1/58/17-100	58	17	100
RE1/50/20-38	50	20	38
RE1/50/24-50	50	24	50

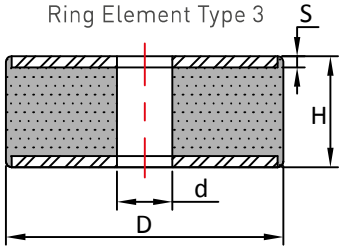
Part No	D	d	H
RE1/50/24.8-50	50	24.8	50
RE1/53/32.5-100	53	32.5	100
RE1/60/20-40	60	20	40
RE1/70/40-40	70	40	40
RE1/75/18-40	75	18	40
RE1/80/15-50	80	15	50
RE1/80/20-27	80	20	27
RE1/80/20-40	80	20	40
RE1/80/21-30	80	21	30
RE1/80/25-40	80	25	40
RE1/80/25-82	80	25	82
RE1/80/30-35	80	30	35
RE1/80/40-30	80	40	30
RE1/80/21-100	80	21	100
RE1/90/30-45	90	30	45
RE1/100/21-40	100	21	40
RE1/100/25-40	100	25	40
RE1/100/25-70	100	25	70
RE1/100/26-40	100	26	40
RE1/100/30-35	100	30	35
RE1/100/33-40	100	33	40
RE1/100/33-75	100	33	75
RE1/100/40-70	100	40	70
RE1/100/70-40	100	70	40
RE1/120/25-40	120	25	40
RE1/120/40-40	120	40	40
RE1/120/50-40	120	50	40
RE1/125/35-125	125	35	125
RE1/125/50-125	125	50	125
RE1/150/51-100	150	51	100
RE1/150/45-180	150	45	180
RE1/160/33-160	160	33	160
RE1/200/61-100	200	61	100
RE1/200/33-200	200	33	200
RE1/250/60-200	250	60	200

Ring Element Type 2



Part No	D	H	d1	d2	S
3016PRB09	30	16	16	9	3
4016PRB09	40	16	16	9	3
4020PRB09	40	20	17	9	3
5016PRB11	50	16	20	11	3
5020PRB11	50	20	22	11	3
6020PRB11	60	20	25	11	4
7525PRB13	75	25	30	13	6
8020PRB13	80	20	32	13	4
10025PRB13	100	25	40	13	6
10030PRB33	100	30	60	33	6
12525PRB17	125	25	50	17	6

Ring Element Type 3



Part No	D	d	H	S
RE3/15/6-25	15	6	25	2
RE3/20/6-25	20	6	25	2
RE3/40/13-20	40	13	20	3
RE3/40/13-30	40	13	30	3
RE3/40/13-40	40	13	40	3
RE3/50/17-20	50	17	20	3
RE3/50/17-40	50	17	40	3
RE3/50/17-50	50	17	50	3
RE3/50/21-15	50	21	15	3
RE3/50/21-30	50	21	30	3
RE3/60/21-50	60	21	50	4
RE3/75/25-55	75	25	55	3
RE3/80/21-30	80	21	30	3
RE3/100/21-40	100	21	40	4
RE3/100/31-40	100	31	40	4
RE3/100/33-75	100	33	75	5
RE3/120/41-40	120	41	40	5
RE3/120/51-40	120	51	40	5
RE3/150/51-100	150	51	100	6
RE3/200/32-100	200	32	100	8
RE3/200/61-100	200	61	100	8

Max compression load in Kg deflection in mm.

INDUSTRIAL PRODUCTS

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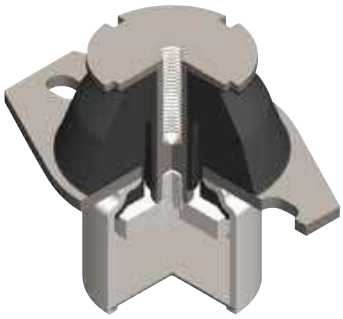
INDUSTRIAL PRODUCTS

Construction, Earth Moving and Agricultural Machinery

Hydro Mountings



A Unique design offering Superior Performance - Hydro Mountings combine a Rubber Element with a Hydraulic Viscous Damper in a single unit.

PROVIDES OPTIMUM ISOLATION AT NORMAL RUNNING SPEEDS

CONTROLS EXCESSIVE MOVEMENT & SHAKE AT LOW SPEEDS

The design of the rubber element & viscous pot and plunger system results in Excellent Vibration Absorption, whilst ensuring the dampening effect of the fluid only enacts when necessary (i.e. during shock forces, resonance, or when equipment is out of balance).

Hydro Mounts are particularly suited for use on Vehicle Cabs and Variable Speed Engines where the equipment may operate close to the mountings resonant frequency, such as vehicle idle speed. The viscous damper controls high amplitude "Transit movements" or "Resonance Shaking".

The mountings are manufactured with interlocking metal components to provide a failsafe design suitable for mobile applications.

Advantages:

- Excellent Vibration Reduction – upto 95%
- Improve Operator Comfort
- Ideal for Mobile Applications
- Absorbs Transit Shocks
- ROPS & FOPS (subject to approval)

Applications:

- Cabs & Engines
- Off-Highway Vehicles
- Construction & Earthmoving Vehicles
- Agricultural Vehicles
- Variable Speed Engines



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Hydro Mountings

Definition of a Rubber Spring

A Rubber Spring, such as an Anti Vibration Mounting, is a mechanical device that stores energy and subsequently releases it to absorb shock and vibration. In a highly resilient polymer such as Polyisoprene (Natural Rubber) the amount of stored energy returned into the system can be as high as 97%. By creating installations with high Frequency Ratios, (i.e. the ratio between the disturbing frequency and natural frequency – fd/fn), high levels of vibration isolation can be achieved.

Definition of Damping

Damping is the reduction of amplitude as a result of absorption of energy, where this energy is converted and dissipated as heat. This is an extremely effective way of controlling excessive amplitudes and unwanted movement.

Damping has four common types;

1. Viscous
2. Friction
3. Hysteresis
4. Mass / Tuned

The level of Damping can be measured and quantified in various forms, all of which can be correlated with other known variants;

1. **Damping Ratio (ζ)** – The ratio between actual damping and critical damping.

$$\zeta = \frac{C}{C_c} = \frac{C}{2\sqrt{k\,m}}$$

2. **Damping Coefficient (C)** – A measurement of the amount of energy absorbed and is given as Force over Velocity.

$$C = \frac{\sqrt{k\,m}}{M}$$

3. **Loss Angle (α)** – The measurement of phase difference between the disturbing input and the response. The bigger the loss angle, the greater the damping.

$$\alpha = tan^{-1}\left(\frac{1}{M}\right)$$

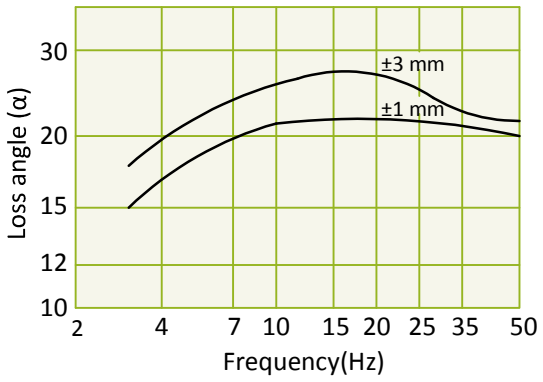
4. **Dynamic Magnifier (M)** – The magnification when the disturbing frequency coincides with the natural frequency of the mounting system (i.e Resonance). The smaller the Dynamic Magnifier the greater the damping.

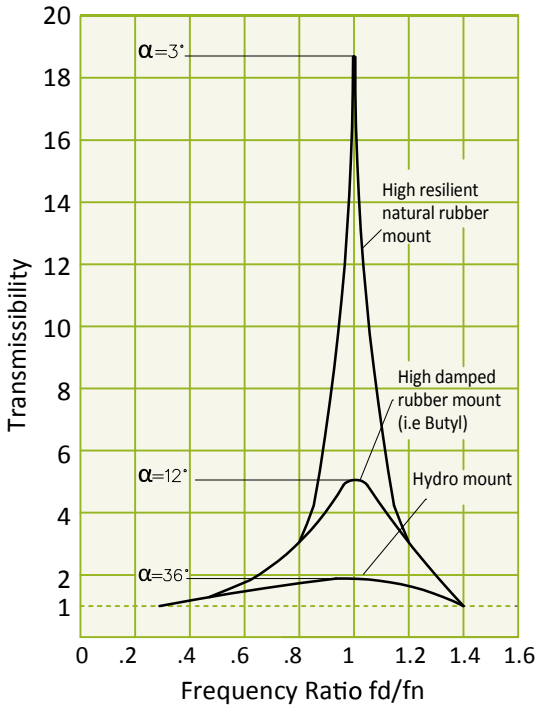
$$M\ (at\ resonance) = \frac{1}{tan^{\alpha}}$$

5. **Rebound Resilience (RR)** – This is the amount of energy returned from the system. The lower the resilience the greater the damping.

$$RR\ (\%) = e^{\frac{\pi}{M}} \times 100$$

Dynamic damping characteristics of a Hydro mount

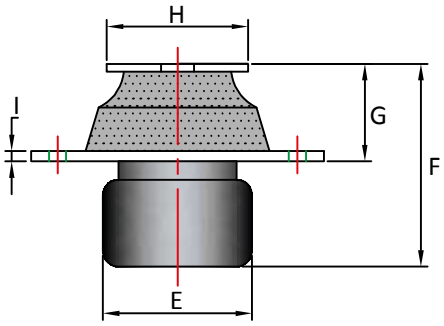


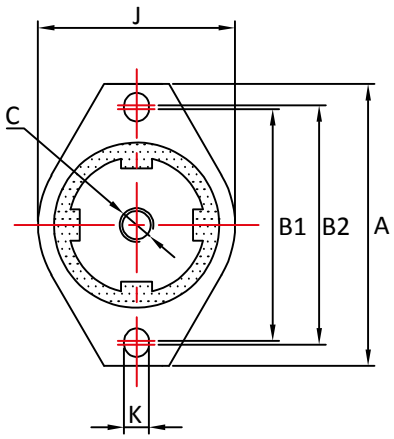


CONSTRUCTION, EARTH MOVING AND AGRICULTURAL MACHINERY

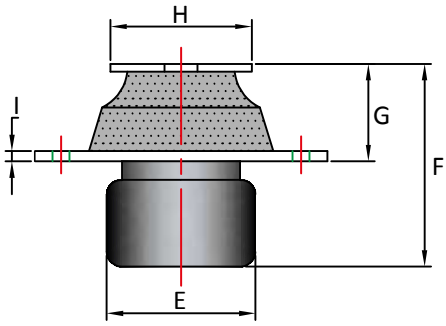
Max compression load in Kg deflection in mm.

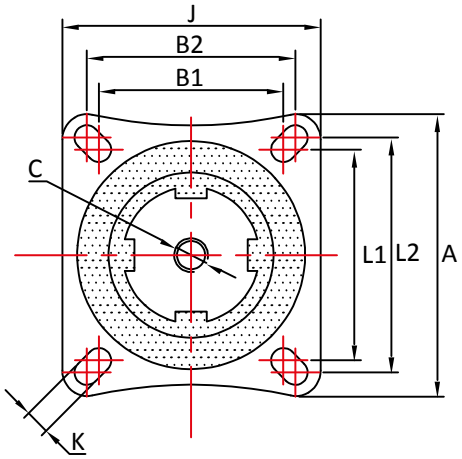
Hydro Mountings





Type A (2 hole)





Type B (4 hole)

Part No	Type	A	B1	B2	L1	L2	C	E	F	G	H	I	J	K
HYDVC0.250	A	88	63	73	-	-	M10	45	60	30	30	3	56	8.2
HYDVC1.400	A	132	99	109	-	-	M10	63	86	36	45	5	90	11
HYDVC1.400SQ	B	105	64	70	79.5	82.5	M10	63	86	36	45	5	91	10
HYDVC1.500	A	132	99	109	-	-	M12	63	96	45	60	5	90	11
HYDVC1.500SQ	B	105	64	70	79.5	82.5	M12	63	96	45	60	5	91	10
HYDVC1.550	A	132	99	109	-	-	M12	63	96	45	75	5	90	11
HYDVC1.550SQ	B	105	64	70	79.5	82.5	M12	63	96	45	75	5	91	10
HYDVC3.200	A	175	130	145	-	-	M20	90	115	53	80	8	108	12
HYDVC3.200SQ	B	130	110	110	110	110	M20	90	115	53	80	8	130	12

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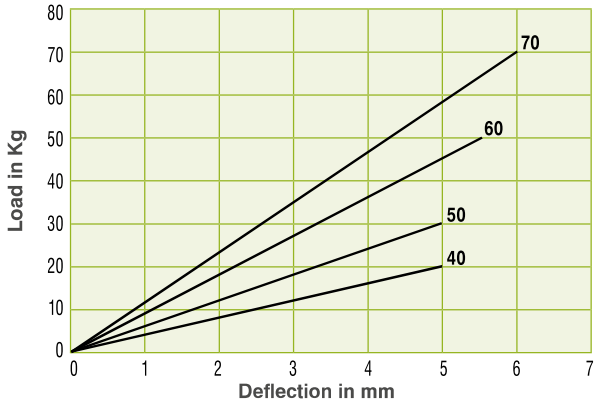
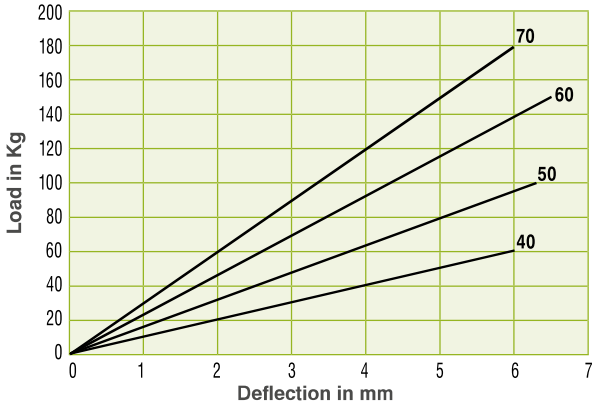
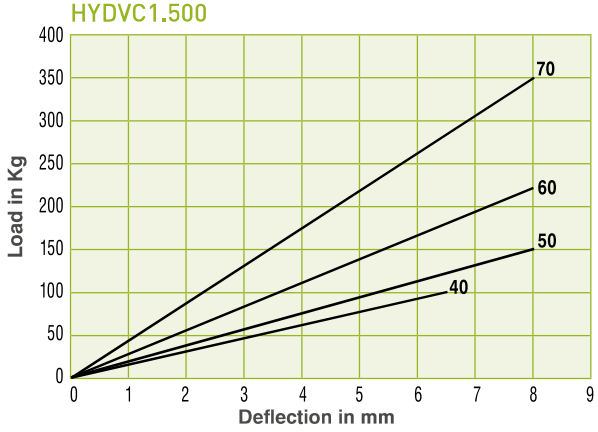
HYDVCO.250



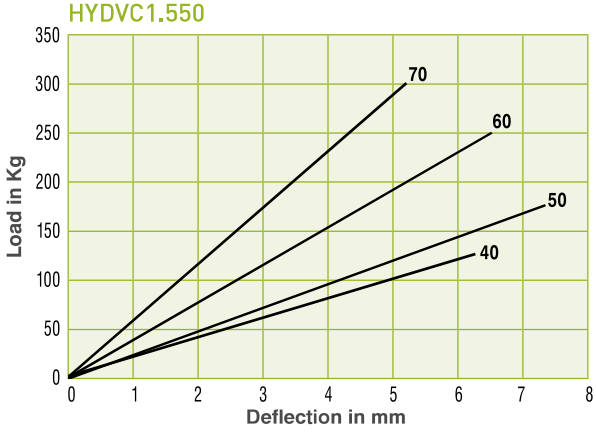
HYDVC1.400



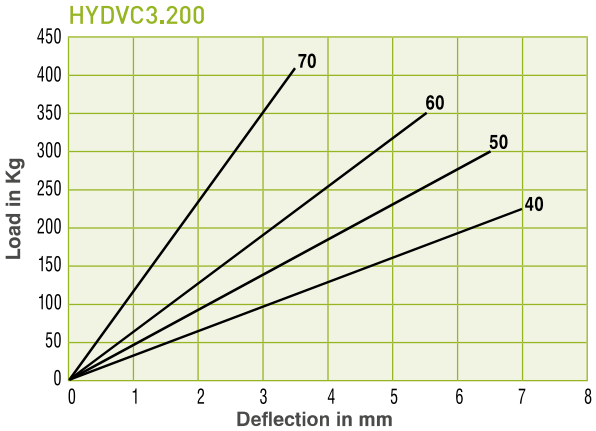
HYDVC1.500

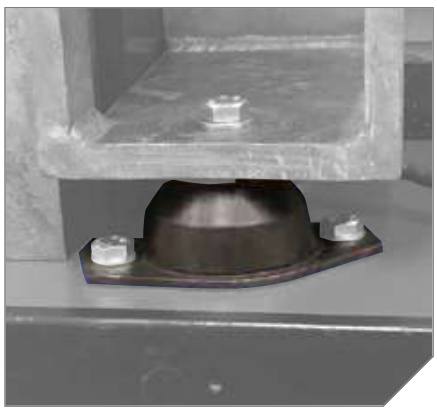


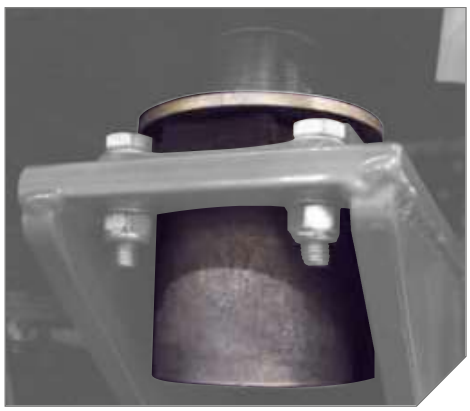
HYDVC1.550



HYDVC3.200







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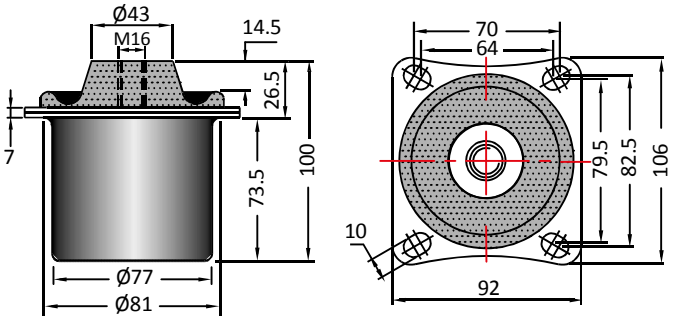
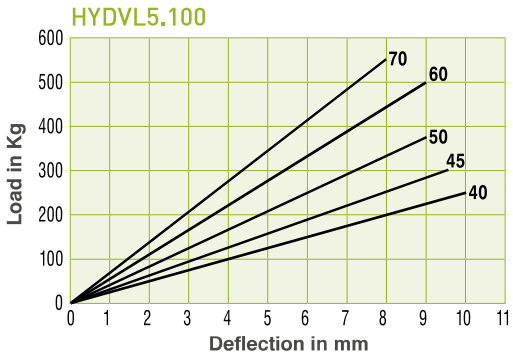
Hydro Mountings

HYDVL5.100





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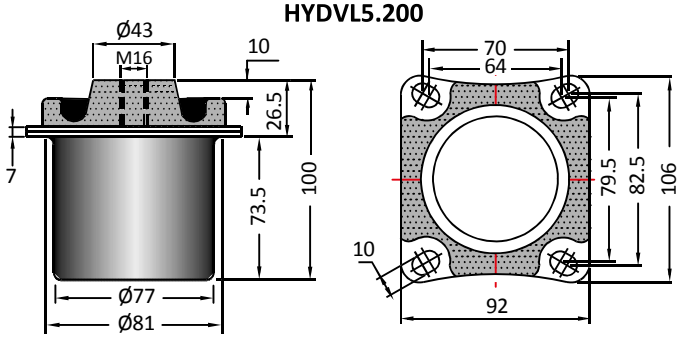
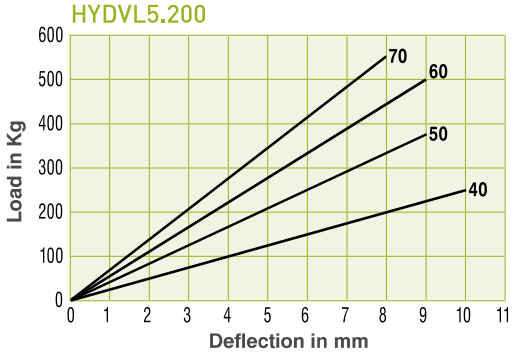
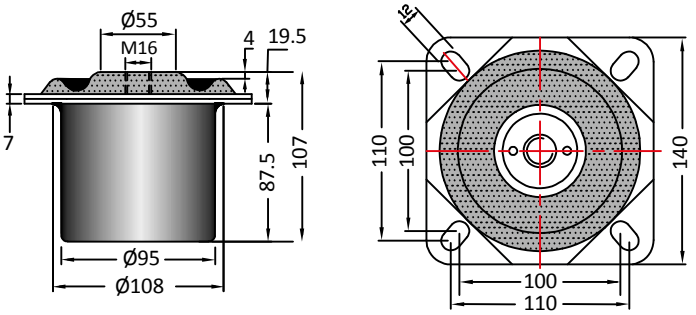
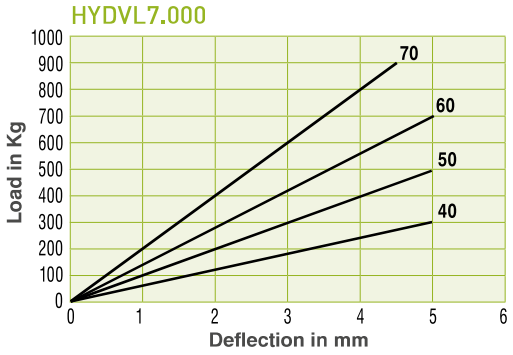




HYDVL7.000





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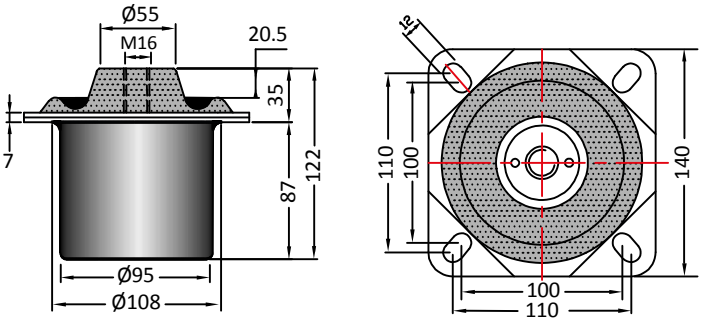

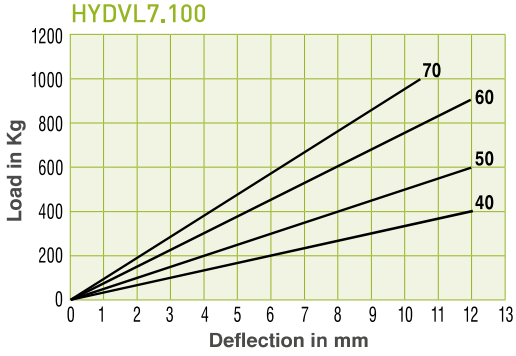

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Cone and Cab Mountings

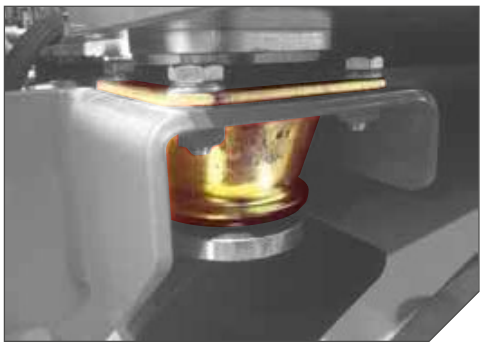
Cone & Cab Mountings are a robust product offering a high horizontal stiffness compared to the vertical stiffness in order to control the movement of Engines, Cabs and Equipment. They are ideal for mobile applications, and are able to accommodate high loads and shock forces whilst offering excellent vibration isolation properties. Cut outs in the rubber section allow for different horizontal to vertical stiffness ratios and the mountings can be supplied with Overload & Rebound washers to provide a failsafe mounting solution. The design of the mountings ensures a low profile installations.

Advantages:

- Failsafe Design
- Ideal for Mobile Applications
- ROPS & FOPS (subject to approval)
- High Shock Load Capacity
- Excellent Vibration Reduction
- Low Profile Installation

Applications:

- Construction Machinery
- Off Road Vehicle Engines
- Vehicle Cabs
- Rail Applications
- Transmission and Gearbox Suspension
- Commercial Vehicles
- Agricultural Vehicles



Max compression load in Kg deflection in mm.

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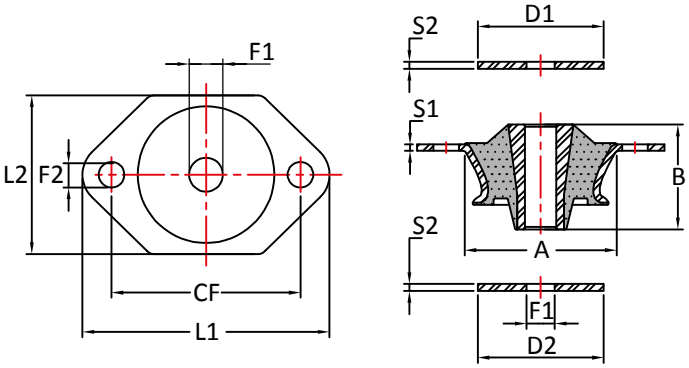
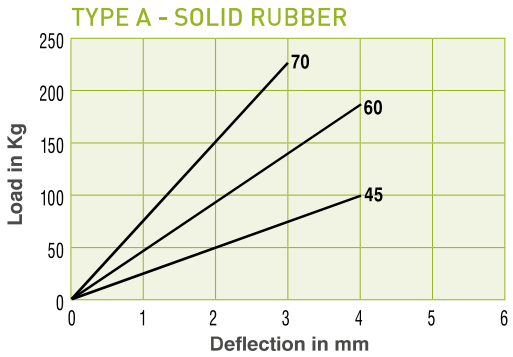
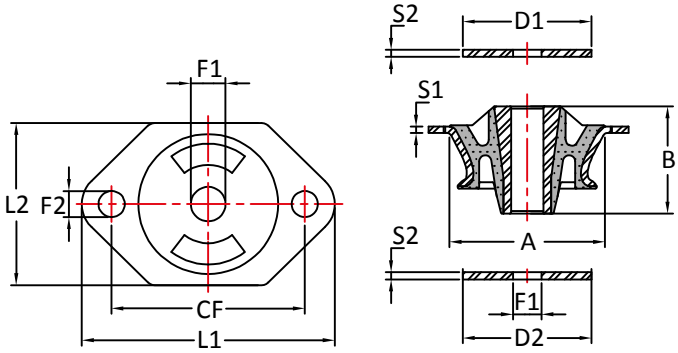
Cone Mountings
2 hole

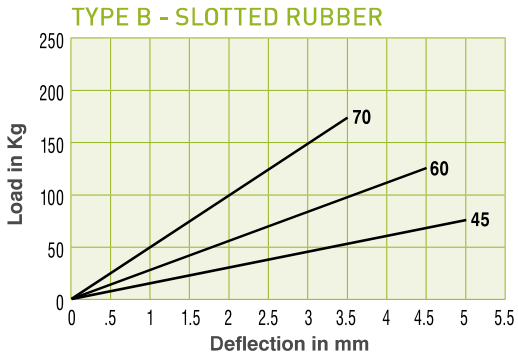


Type A – Solid Rubber





Type B – Slotted Rubber



Part No	Type	A	B	CF	D1	D2	F1	F2	L1	L2	S1	S2
CM6051/12A	A	60	45	78 - 84	54	54	12	11.0	106	68	2.5	3.0
CM6051/16A	A	60	45	78 - 84	54	54	16	11.0	106	68	2.5	3.0
CM6051/12B	B	60	45	78 - 84	54	54	12	11.0	106	68	2.5	3.0
CM6051/16B	B	60	45	78 - 84	54	54	16	11	106	68	2.5	3.0

Max compression load in Kg deflection in mm.

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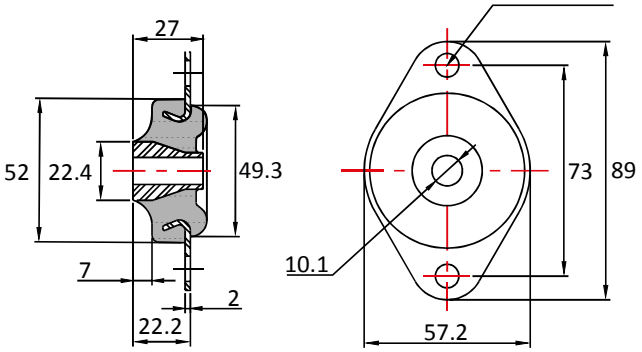
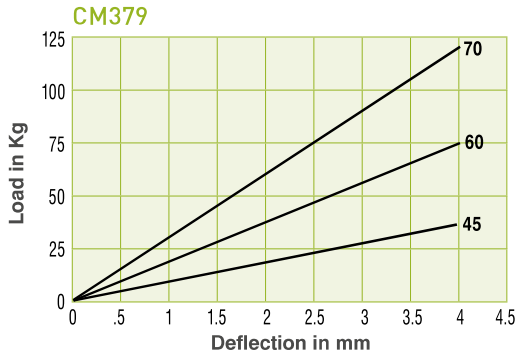
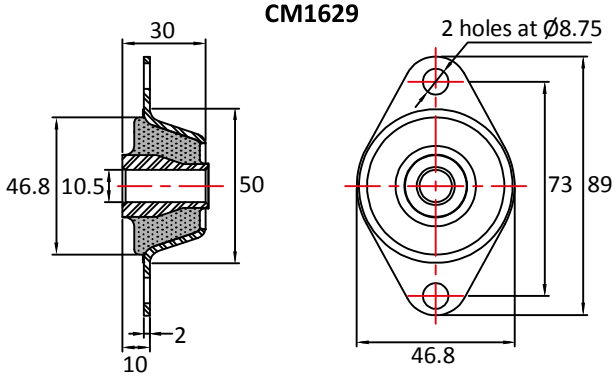
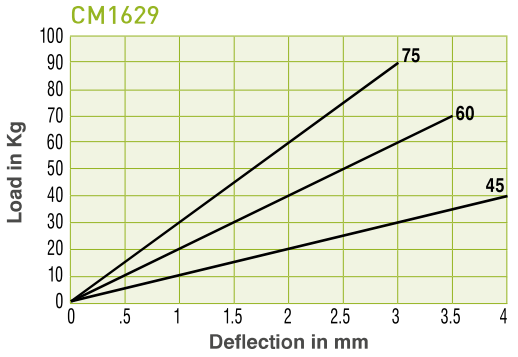
CM379





CM1629





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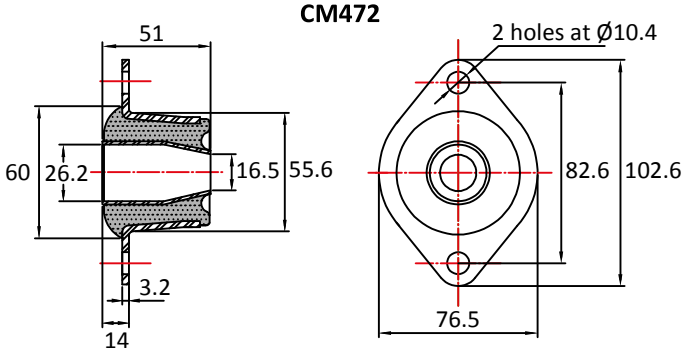
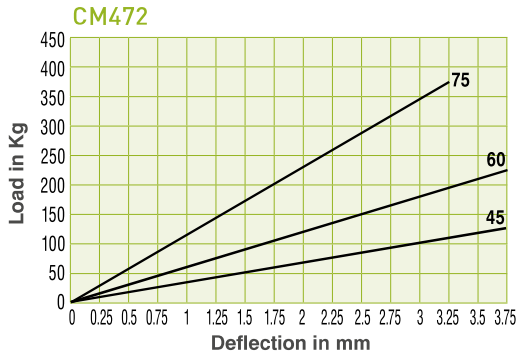
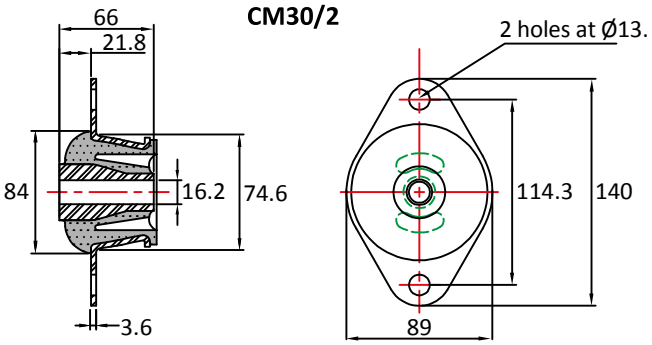
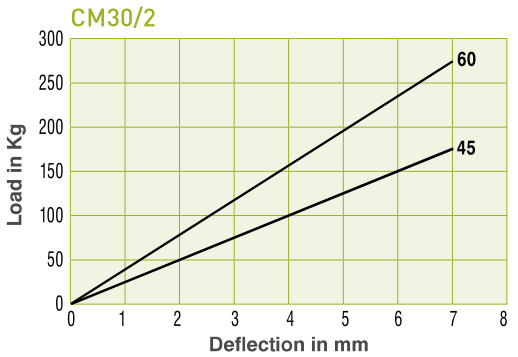




CM30/2





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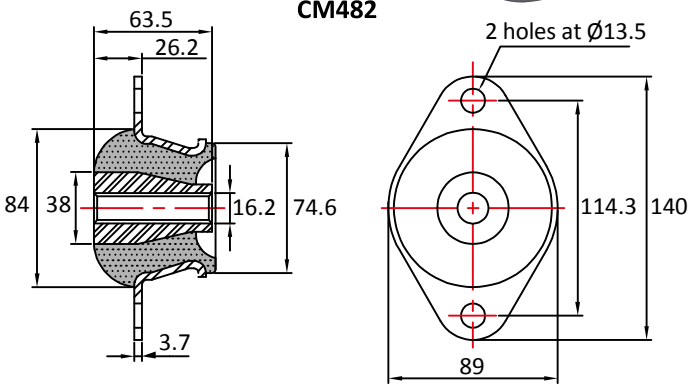
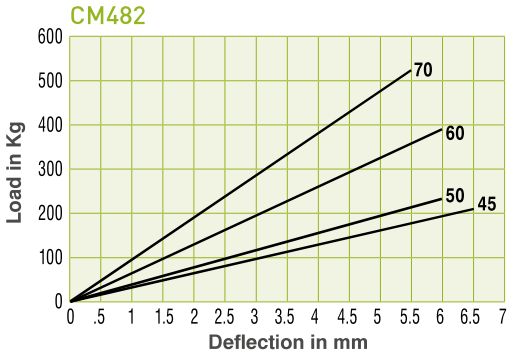
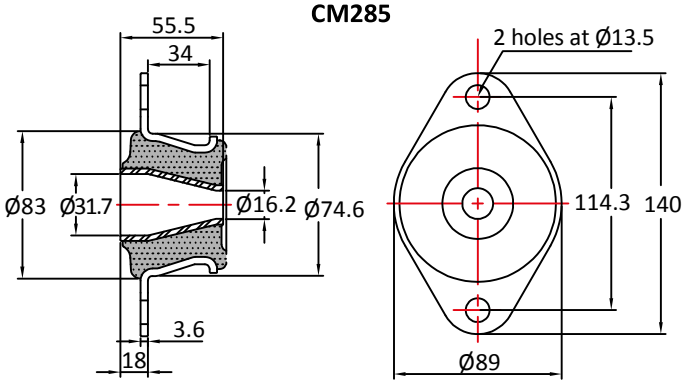
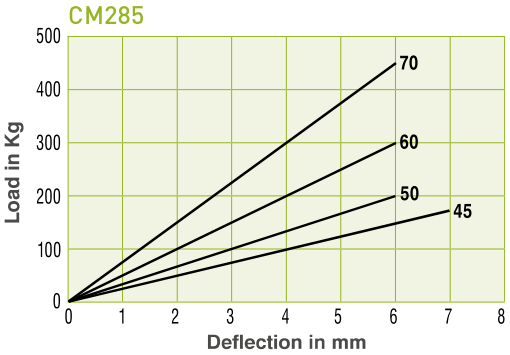
CM482



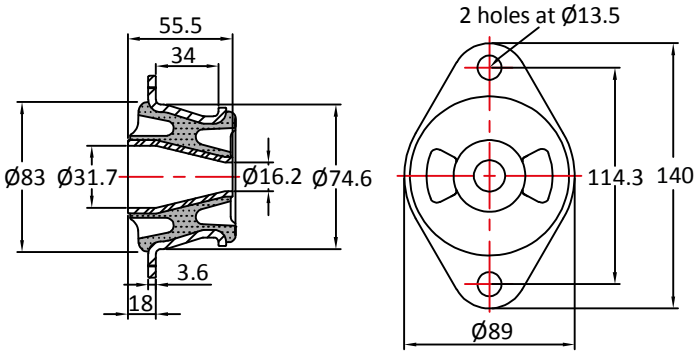


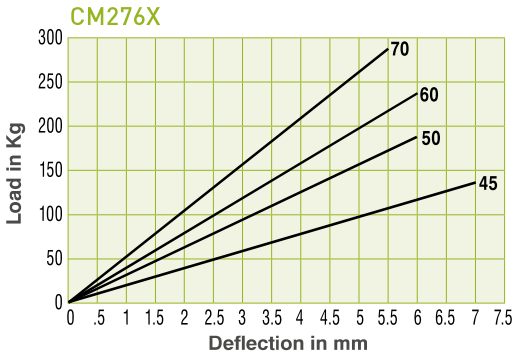
CM285



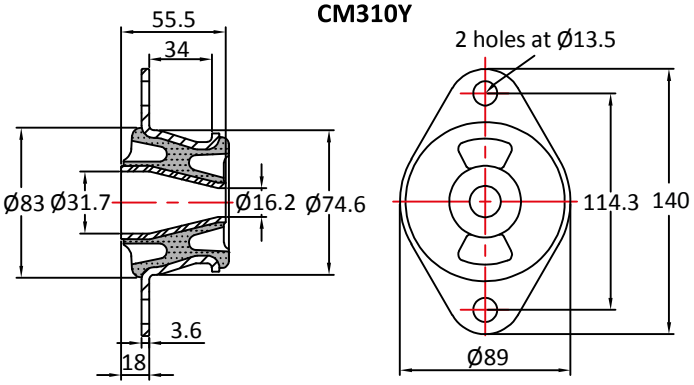


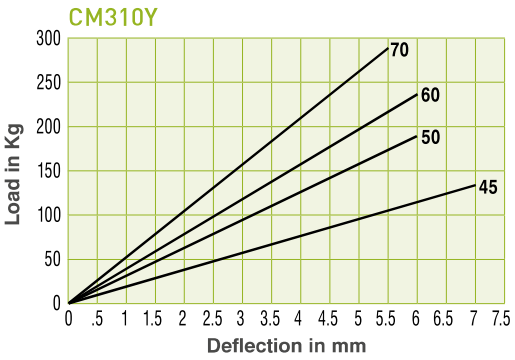
CM276X





CM310Y





Max compression load in Kg deflection in mm.

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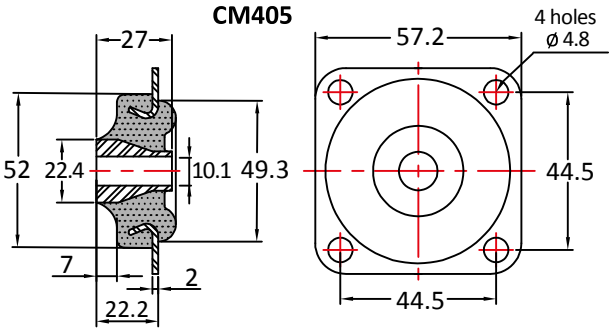
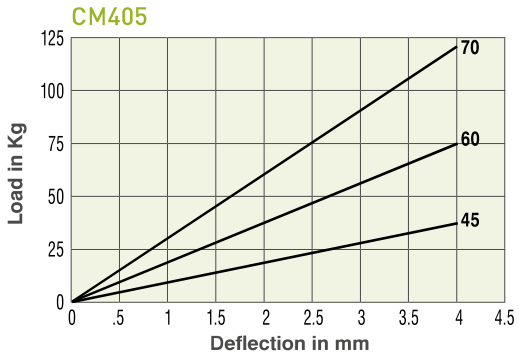
Cone Mountings

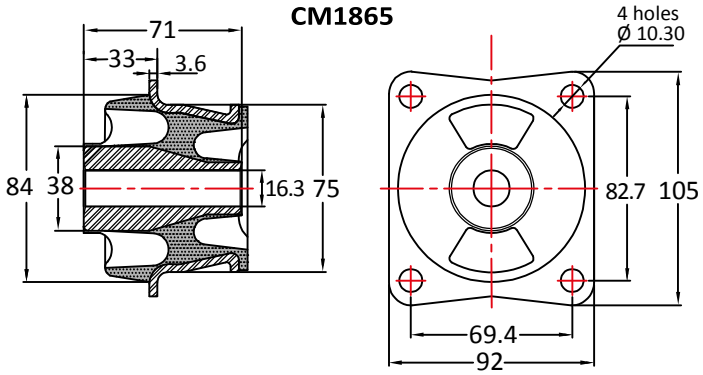
4 hole

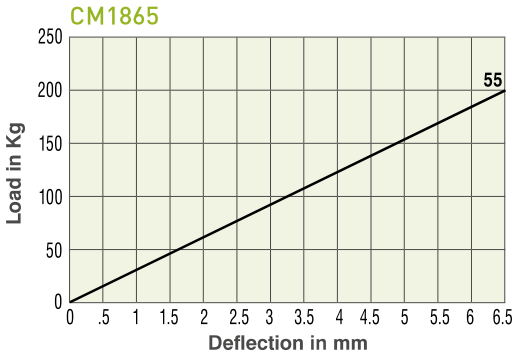
CM405





CM1865





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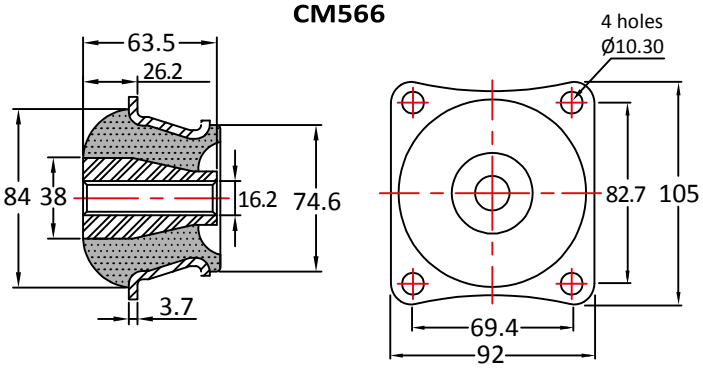
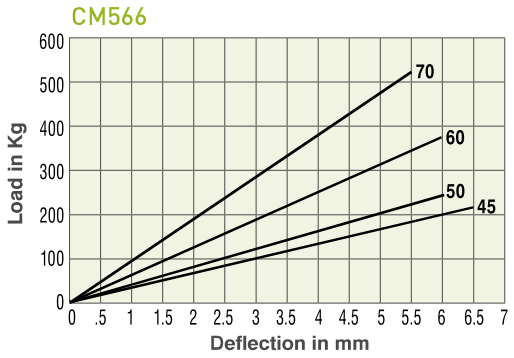
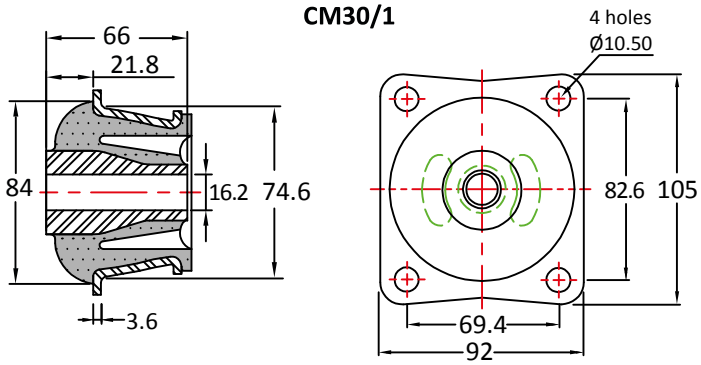
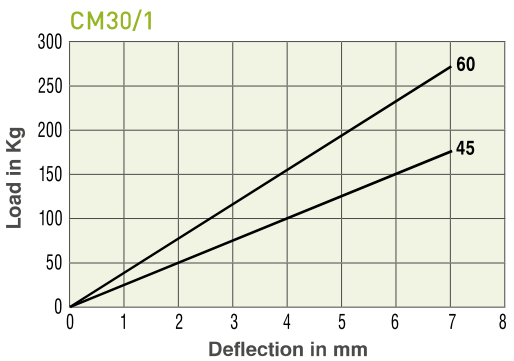




CM30/1





Max compression load in Kg deflection in mm.

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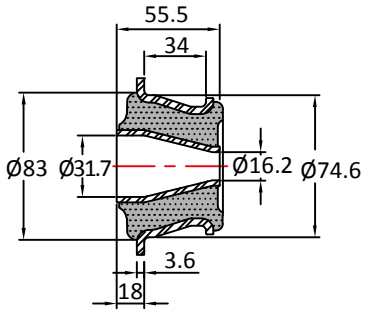
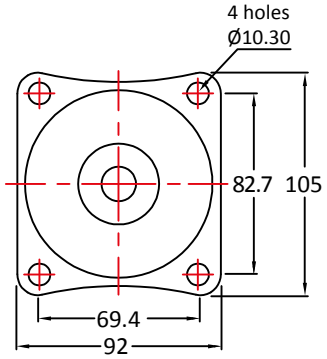
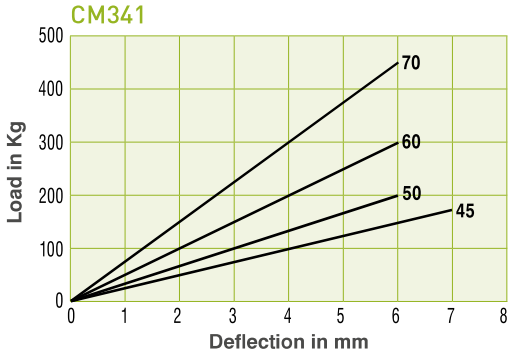
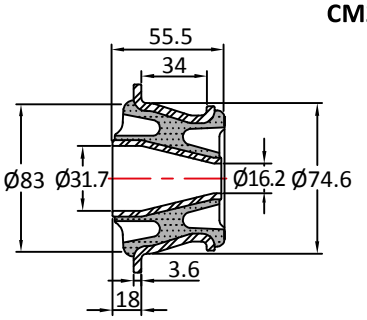
CM341

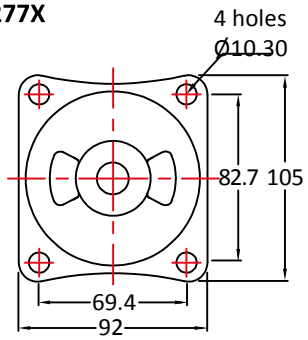


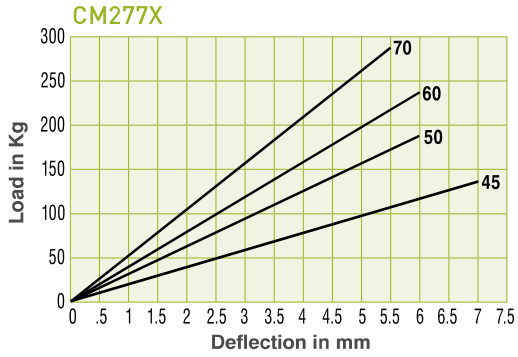




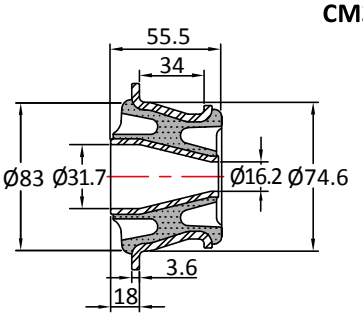
CM277X

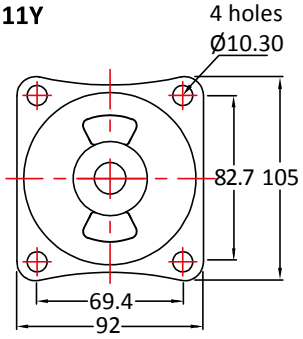


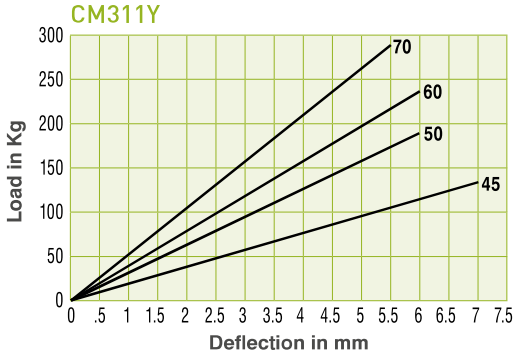




CM311Y







Max compression load in Kg deflection in mm.

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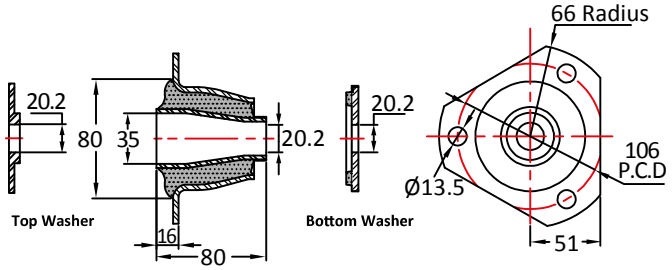
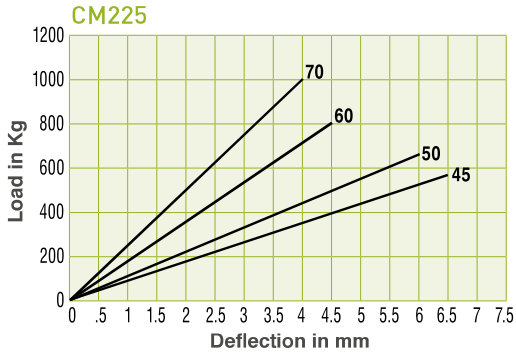
Heavy Duty Mountings




CM225





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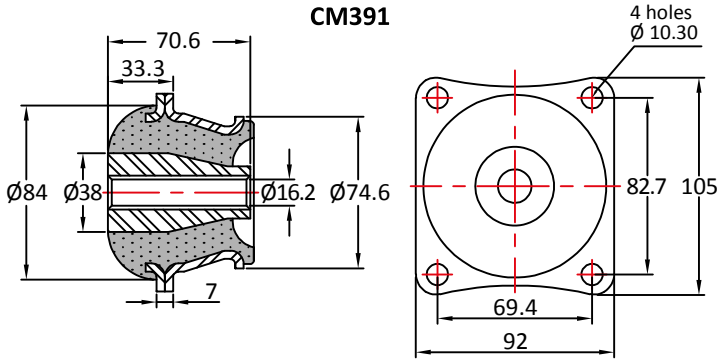
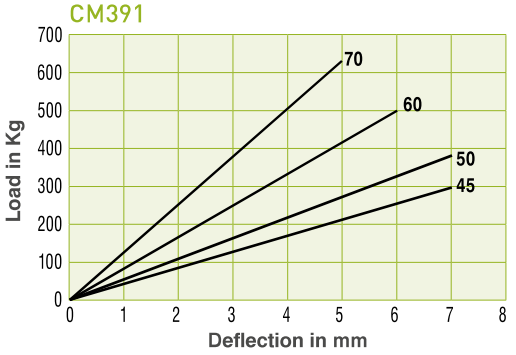
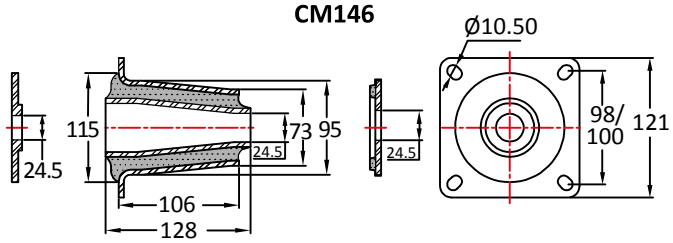
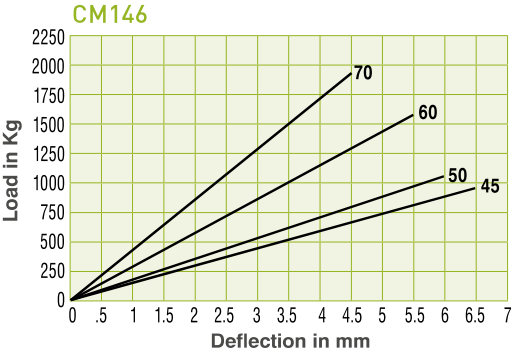


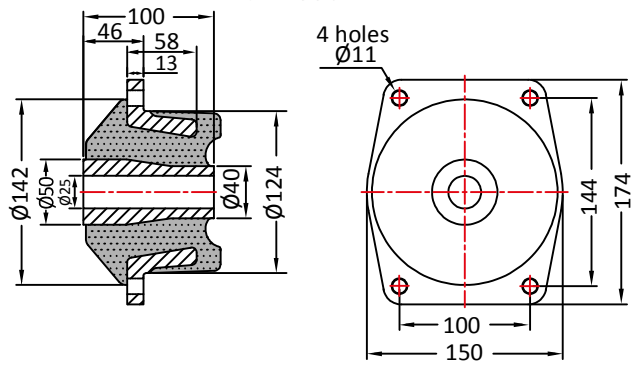


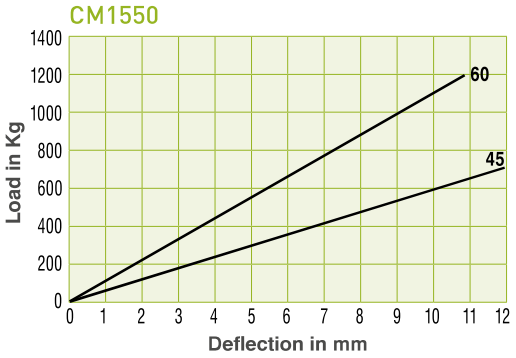
CM146





CM1550





Max compression load in Kg deflection in mm.

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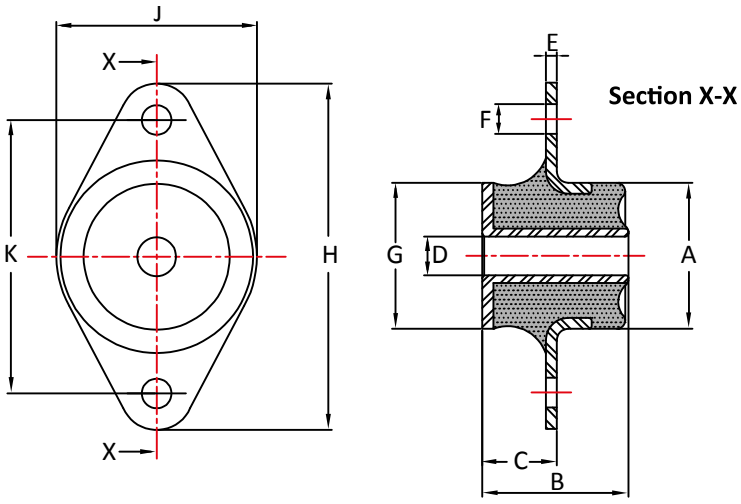
Flanged Compression Mountings

Flanged Compression Mounting are a Low Profile design, ideal for Shock and Vibration absorption. Using Top and Bottom washers provides a fail-safe design, suitable for mobile applications.

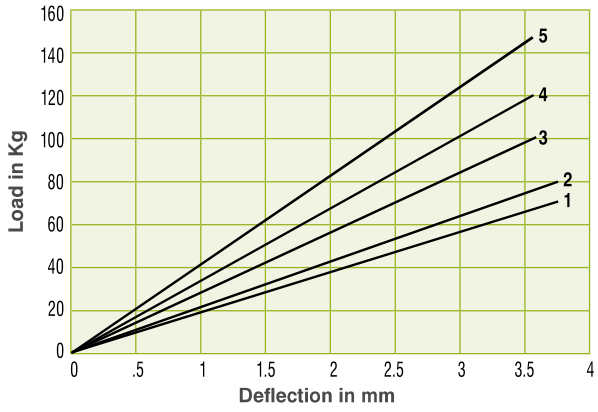
Applications:

- Commercial Vehicle
- HVAC
- Radiators
- Pumps
- Compressors

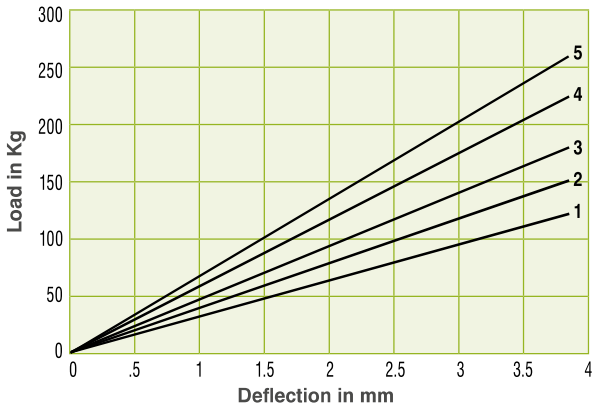


Part No	A	B	C	D	E	F	G	H	J	K
CM507	50.8	44.4	25.1	11.7	3.2	10.3	47.8	114.3	63.5	89.9
CM508	50.8	50.8	25.9	13.5	3.8	10.3	50.8	120.6	69.8	95.2

CM507



CM508



CONSTRUCTION, EARTH MOVING AND AGRICULTURAL MACHINERY

Max compression load in Kg deflection in mm.

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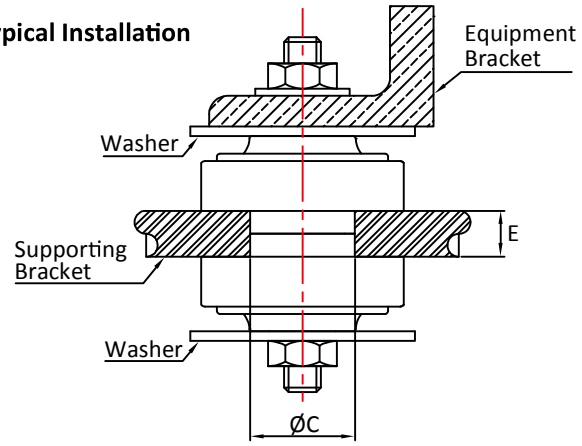
CDM Mountings

CDM Mountings are used in pairs, providing a simple single bolt installation. They are able to withstand high dynamic shock loads, particularly when being used on Off-Road Vehicles. The outer body incorporates a steel cup to limit vertical movement and reduce rubber stress, normally caused by bump & shock conditions.

Typical Installation

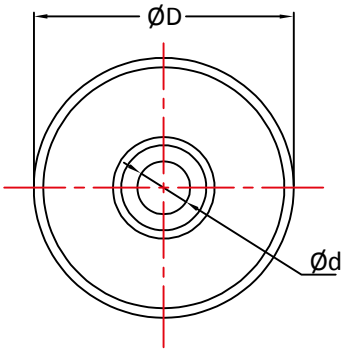


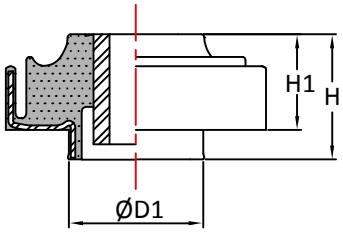
Advantages:

- Simple Single Bolt Installation
- Ideal for Shock & Bump Conditions
- Integral Overload Metal Cup
- Excellent Vibration Reduction

Applications:

- Off-Highway Vehicles
- Construction Vehicles
- Cabs & Engines





Part No	d	D	D1	H	H1	C	E	Bolt Size	Max. Bolt Torque N/m	Max Load (kg)
CDM66-45	18.8	66	39.8	38	29.5	40.0-40.3	19/20	M16	240	70
CDM66-55	18.8	66	39.8	38	29.5	40.0-40.3	19/20	M16	240	120
CDM66-65	18.8	66	39.8	38	29.5	40.0-40.3	19/20	M16	240	170
CDM80-45	16.2	80	37.8	41.5	32	37.9-38.2	19/20	M16	240	90
CDM80-55	16.2	80	37.8	41.5	32	37.9-38.2	19/20	M16	240	140
CDM80-65	16.2	80	37.8	41.5	32	37.9-38.2	19/20	M16	240	200
CDM110-45	22.5	110	56.9	51.5	39	57.2-57.5	25	M20 or M22	502/685	230
CDM110-55	22.5	110	56.9	51.5	39	57.2-57.5	25	M20 or M22	502/685	360
CDM110-65	22.5	110	56.9	51.5	39	57.2-57.5	25	M20 or M22	502/685	510
CDM130-45	30.2	128	69.2	58.5	43	70.75-71.25	40	M30	750	230
CDM130-55	30.2	128	69.2	58.5	43	70.75-71.25	40	M30	750	500
CDM130-65	30.2	128	69.2	58.5	43	70.75-71.25	40	M30	750	600

Max compression load in Kg deflection in mm.

Multi Directional Mountings

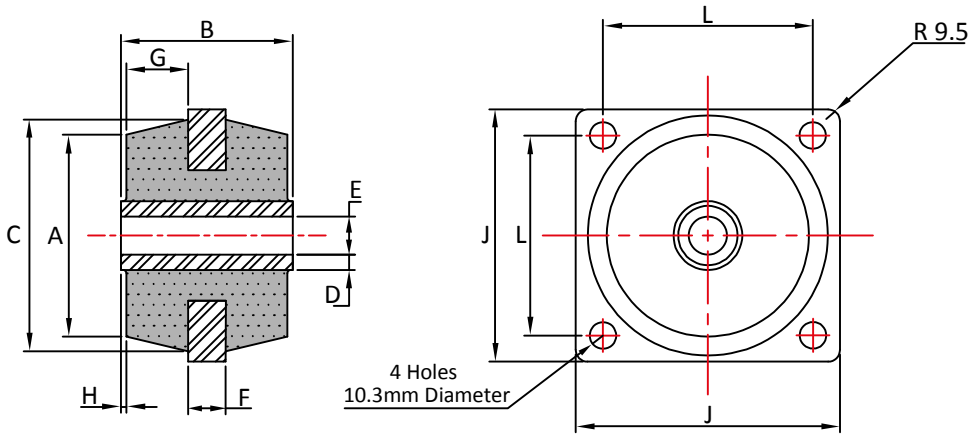
Multi Directional mountings are used to accommodate forces in both the upwards & downwards direction (i.e. positive and negative forces), and are ideal for applications such as Gearbox mountings where the torque applied during forward and reverse situations needs to be accommodated. Mountings should be used with Top & Bottom overload washers to provide a failsafe mounting arrangement.

Advantages:

- Multi Directional Isolation
- Heavy Duty, Robust Design
- Ideal for Mobile Applications
- ROPS & FOPS (subject to approval)

Applications:

- Vehicle Cabs
- Gearbox and Transmission Mountings
- Military & MOD
- Construction & Earthmoving



Part No	A	B	C	D	E	F	G	H	J	L	Max Load (kg)			Deflection
											45 SH A	60 SH A	70 SH A	mm
CM890	69	54	79	5	16	12	19.7	1.4	89	70	380	735	1080	5

Max compression load in Kg deflection in mm.

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Cab Mountings

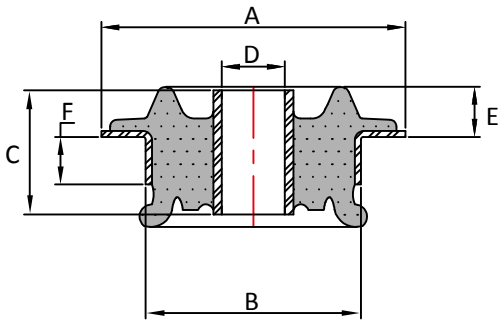
Cab Mountings provide a simple, single bolt, method of installation. The unique rubber profile design provides a High Level of ride comfort on Vehicle Cabs, and also control of movement under shock and bump. The use of Overload & Rebound washers provide a failsafe solution.

Advantages:

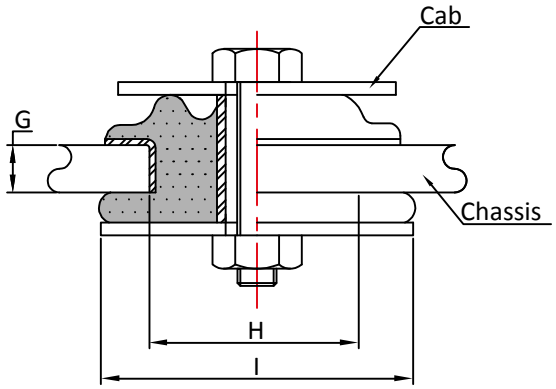
- Simple, Single Bolt Installation
- Ideal for Mobile Applications
- Control Movement on rough Terrain
- Low Stiffness for high ride comfort

Applications:

- Construction Equipment
- Off Road Vehicles
- Tractors
- Material Handling



Assembly Drawing



Part No	A	B	C	D	E	F	G	H Min	H Max	I Min	45 Shore A Max Kg	60 Shore A Max Kg
CB1650/1	105	75	46	16.2	22	17	20	75.25	75.75	105	300	500
CB1650	105	75	46	21	22	17	20	75.25	75.75	105	300	500
CB1814	120	89	47	25	21	23	25	89.25	89.75	120	428	713

Max compression load in Kg deflection in mm.

SW Mountings

SW mountings are ideal for Heavy Duty Applications, commonly used in the Mining, Quarrying and Construction Industries.

The mountings consist of a High Dynamic Rubber Compound sandwiched between multiple steel interleaf plates. This design allows the mountings to withstand large compressive forces with minimum deformation, whilst providing a relatively low stiffness in the shear direction.

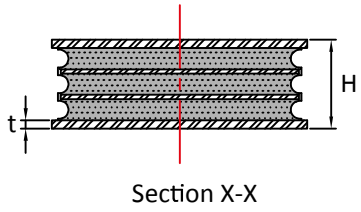
The combination of Low Height, High Vertical Stiffness and Low Shear Stiffness provides a universal, high performance mounting with uses in many heavy duty engineering applications.

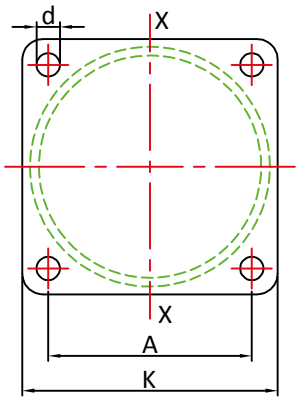
Advantages:

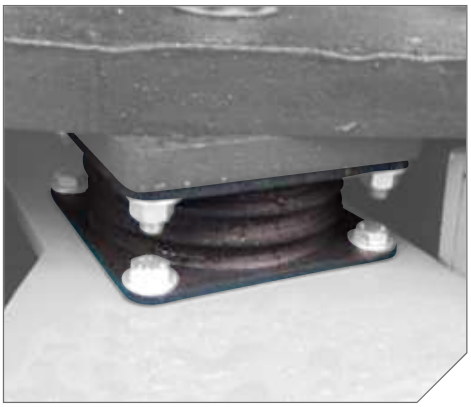
- High Compressive Stiffness
- Low Shear Stiffness
- Low Height
- High Dynamic Rubber Compound

Applications:

- Vibratory Screens & Graders
- Crushing Equipment
- Hoppers & Feeders
- Mining & Quarry Equipment
- Construction Machines







CONSTRUCTION, EARTH MOVING AND AGRICULTURAL MACHINERY

Part No	A	K	H	d	t	Max Compression Load (Kg)	
						40 Shore	60 Shore
SW125	118	148	52	13.5	5	2250	4500
SW150	136	166	63	13.5	6	3750	7500
SW200	184	220	82	17	8	6000	12000
SW300	270	310	120	22	10	15000	30000

Max compression load in Kg deflection in mm.

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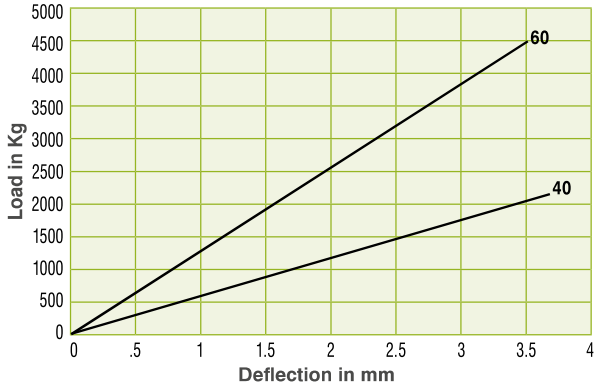
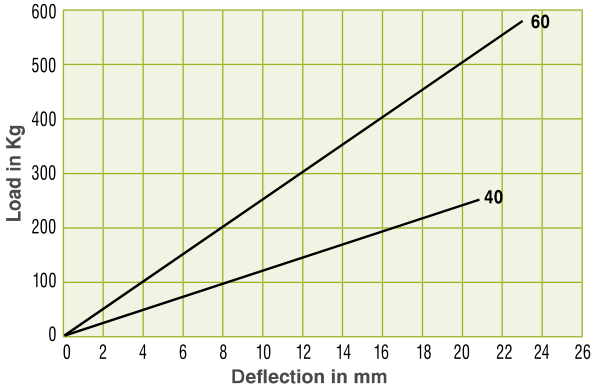
SW Mountings

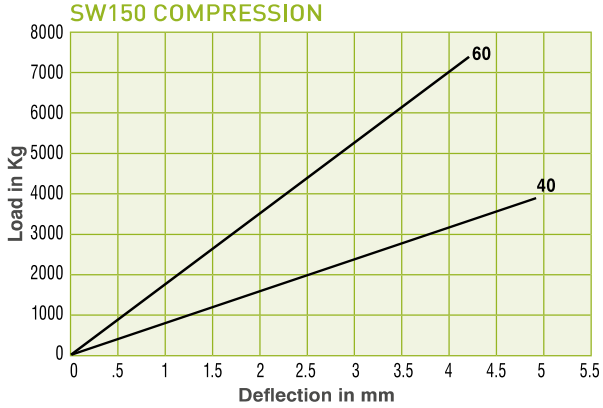
SW125 COMPRESSION



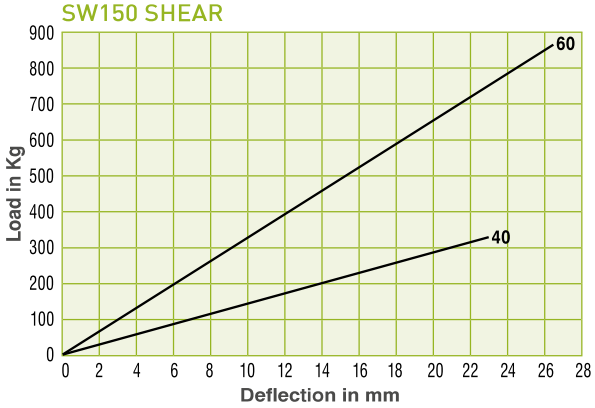
SW125 SHEAR



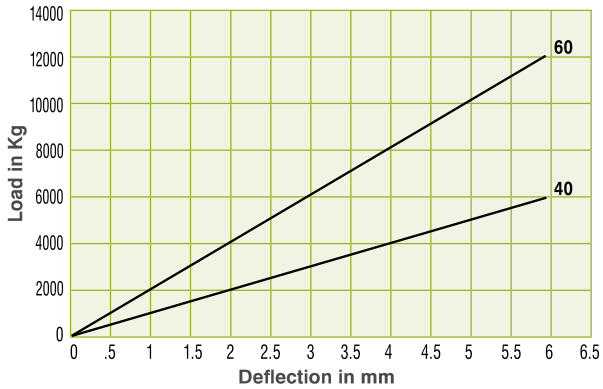
SW150 COMPRESSION



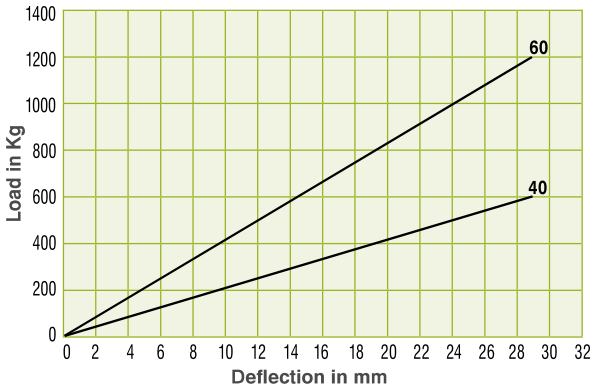
SW150 SHEAR



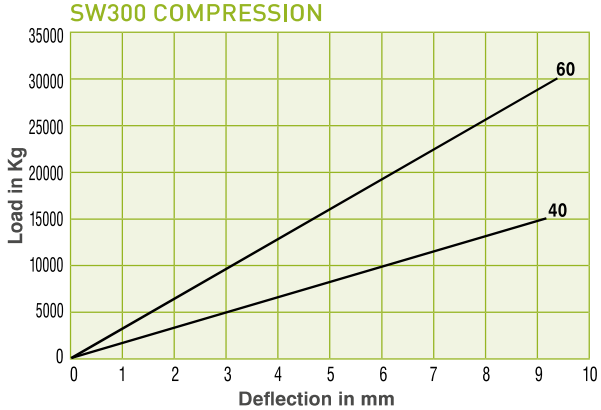
SW200 COMPRESSION



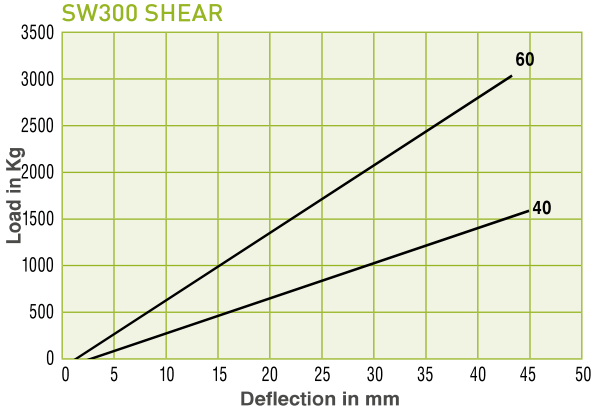
SW200 SHEAR



SW300 COMPRESSION



SW300 SHEAR



Max compression load in Kg deflection in mm.

This information is for guidance only. Customers are recommended to contact us for further technical information on products and applications.
We reserve the right to alter specifications or withdraw products without notice.

CONSTRUCTION, EARTH MOVING AND AGRICULTURAL MACHINERY

Shear Compression Mountings

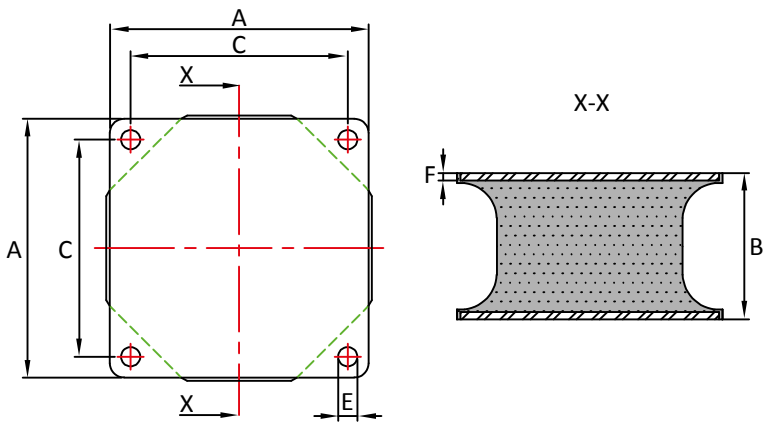
Shear Compression Mountings are manufactured from high quality natural rubber and are designed to allow large amounts of horizontal and lateral movement. They are typically used in the Construction Industry, particularly on Compaction Equipment. The high grade rubber formulation ensures extended service life under continuous high levels of mechanically induced vibration.

Advantages:

- High Fatigue Rubber – Extended Service Life
- Excellent Vibration Isolation
- Allows High Levels of Movement
- Prevents Wear & Damage to Machine

Applications:

- Vibratory Compaction Equipment
- Plant and Construction Equipment
- Vibrating Screens
- Industrial Machinery



CONSTRUCTION, EARTH MOVING AND AGRICULTURAL MACHINERY

Part No	A	B	C	E	F
SCM719649	219	99.8	190	13.2	4.8
SCM719749	174	98.5	146	13.2	5.2
SCM719849	234	139.5	190.5	19.7	6.2
SCM10063	100	63.5	76.2	10.5	5
SCM345215	110	61	85	11	3.6
SCM160100	160	100	135	13	5

Max compression load in Kg deflection in mm.

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Interleaf Mountings

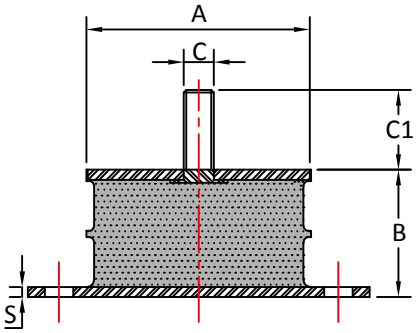
Interleaf Mountings are produced with an integrally bonded interleaf metal to increase the compression load capacity of the mounting, and are ideal where large compressive forces need to be accommodated whilst giving relatively small amounts of deflection on the product and also retaining their low stiffness in the shear direction. The mountings are also available without interleaf metals.

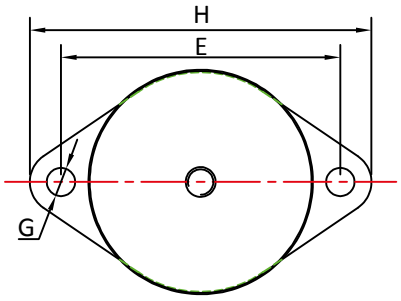
Advantages:

- Accommodate High Compression Forces
- High Quality Rubber Formulation – Extended Life
- Easy to Install

Applications:

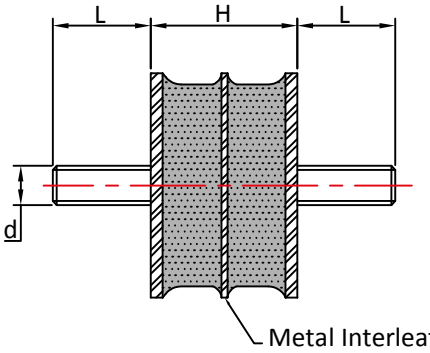
- Vibratory Rollers
- Sieves & Grading Equipment
- Construction Equipment
- Industrial Machinery

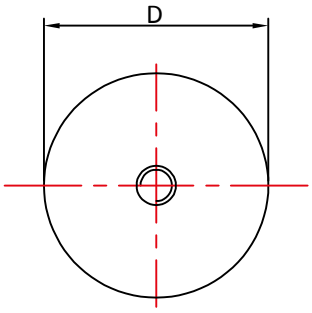




Part No	A	B	C	C1	E	G	H	S	45° Shore		60° Shore	
									Load (Kg)	Def. (mm)	Load (Kg)	Def. (mm)
FCM1536*	89	50.8	M12	32.5	112	11	137	4	250	5	500	5

*Without Metal Interleaf





Part No	D	H	L	d	Max Load (kg)			Deflection
					45° Shore A	60° Shore A	70° Shore A	mm
IB1392	57	37	25	M10	120	250	330	2.6
NIB1388*	57	37	25	M10	70	140	198	3.0
IB1393	76.2	36.6	25	M10	230	580	810	3.0
NIB1389*	76.2	36.6	25	M10	150	300	420	2.9

*Without Metal Interleaf

Max compression load in Kg deflection in mm.

Bemag Mountings

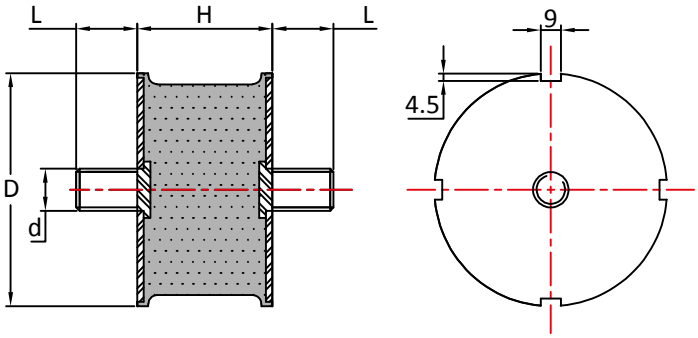
Bemag mountings are used primarily within the Construction Industry and can accommodate high dynamic forces. The oversized end metals allows for improve bonded interface between the rubber and metal to increase the fatigue life, particularly where continuous dynamic forces are applied in shear.
Available with M12 threads on request.

Advantages:

- Extended Fatigue Life
- High Resilience
- Ideal for Continuous Dynamic Forces
- Cut-Outs on Metals to stop twisting

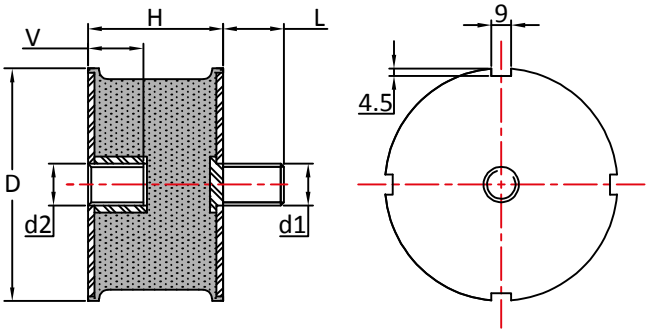
Applications:

- Vibratory Rollers
- Compactors
- Construction Equipment



Male/Male

Part No	D	H	d x L	d x L
BM10540MM13/18	105	40	M16 x 13	M16 x 18
BM10540MM28	105	40	M16 x 28	M16 x 28
BM10555MM17/25	105	55	M16 x 17	M16 x 25
BM10555MM26/15	105	55	M16 x 26	M16 x 15
BM10555MM36/25	105	55	M16 x 36	M16 x 25



Male/Female

Part No	D	H	d1 x L	d2 x V
BM10540MF17	105	40	M16 x 17	M16 x 16
BM10555MF17	105	55	M16 x17	M16 x 16

Max compression load in Kg deflection in mm.

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Hollow Rubber Springs

Hollow Rubber Springs give high levels of deflection allowing them to provide excellent levels of shock absorption, and are available in a range of styles, sizes and rubber hardness' to suit each application. Hollow Rubber Springs are typically used as Sole Suspension Springs, Secondary Assister Springs, and Buffer & Bump Stop shock absorbers, and can be used as an alternative to a metal coil spring, where they provide the benefit of increased damping.

Advantages:

- Excellent Shock Absorption
- Progressive Stiffness
- High Fatigue Life
- Maintenance Free
- Load Ranges from 20Kg to 10600Kg

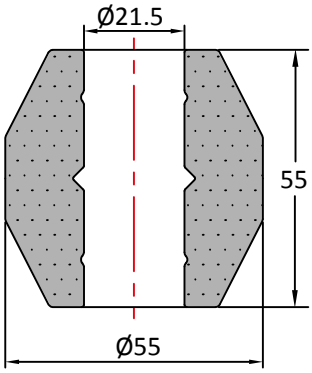
Applications:

- Vehicle Suspension Systems
- Commercial & Off-Road Vehicles
- Trailers
- Construction Equipment
- Agricultural Equipment

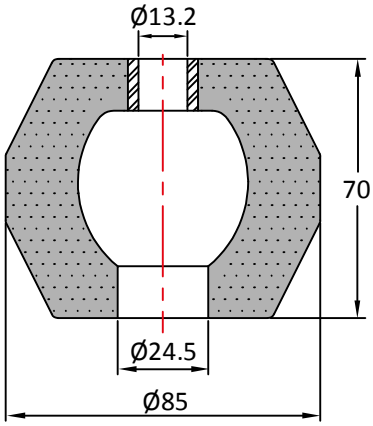
Max compression load in Kg deflection in mm.

Hollow Rubber Springs

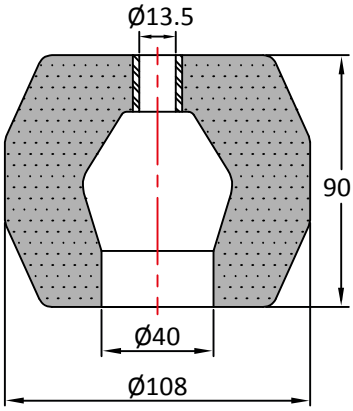
Single Convolution



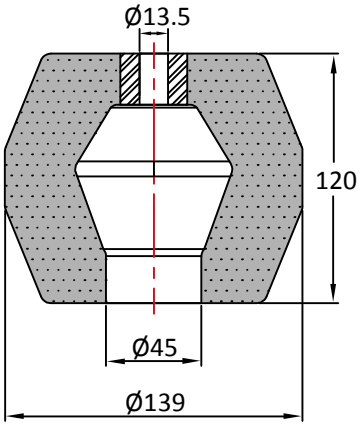
HRS5556



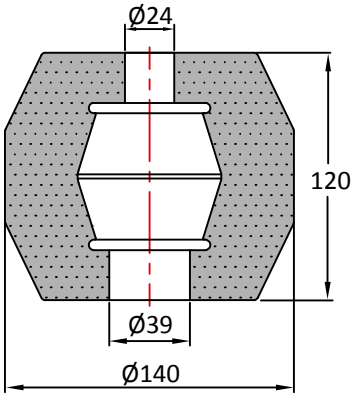
HRS170H



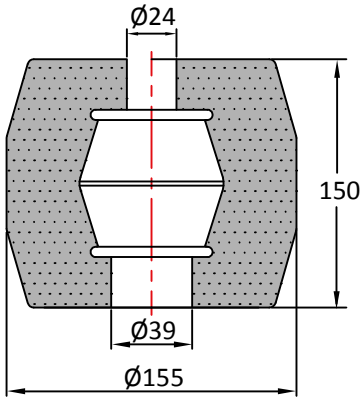
HRS103B/1
HRS103BH



HRS1525M
HRS1525H



HRS140120



HRS155150

Part No	Nominal Static Load (Kg) i.e. a Suspension Spring	Max Continuous Static Load (Kg) i.e. as an Assister	Max Load (Kg) Bump / Shock	Deflection at Max Load (mm)
HRS5556	110	300	500	32
HRS170H	250	1,215	1,820	42
HRS103B/1	400	1,370	2,040	48
HRS103BH	500	1,520	2,270	41
HRS1525M	750	3,040	4,540	70
HRS1525H	900	3,040	4,600	63
HRS140120	1,000	4,010	7,000	65
HRS155150	800	2,500	3,500	70

Max compression load in Kg deflection in mm.

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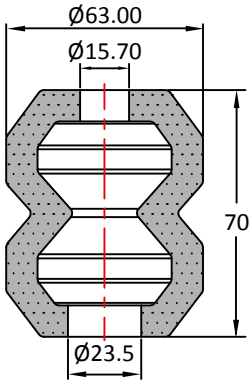
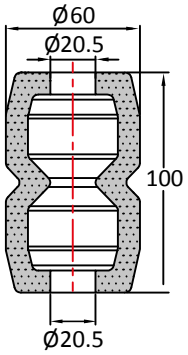
Hollow Rubber Springs

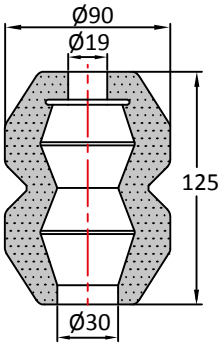
Double Convolution



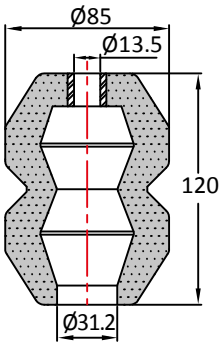
HRS505H



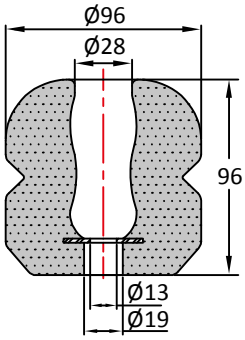
HRS10069



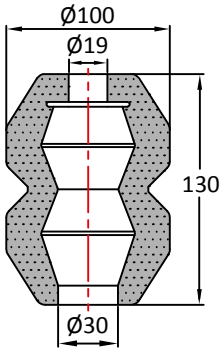
HRS90125



HRS530



HRS9696



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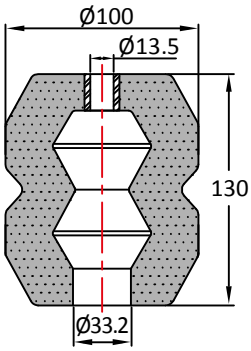

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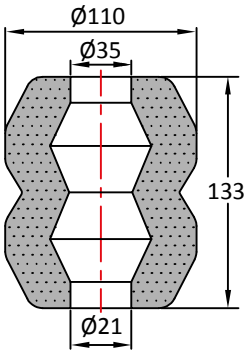
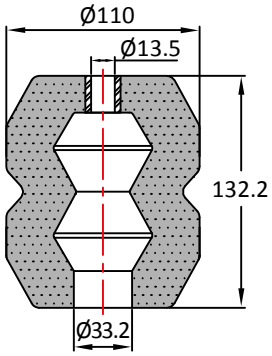


HRS110133H



HRS540/1

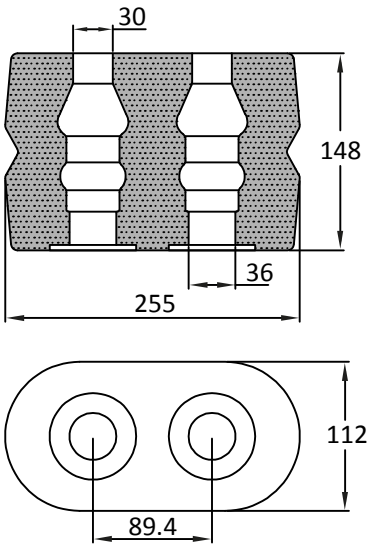
Part No	Nominal Static Load (Kg) i.e. a Suspension Spring	Max Continuous Static Load (Kg) i.e. as an Assister	Max Load (Kg) Bump / Shock	Deflection at Max Load (mm)
HRS505H	40	300	450	45
HRS10069	120	600	850	58
HRS90125	200	500	800	70
HRS530	280	900	1,300	70
HRS9696	300	1,700	2,400	50
HRS100130	300	860	1,340	75
HRS535	350	1,400	2,000	75
HRS110133H	450	2,000	3,000	75
HRS540/1	500	2,300	3,400	75

Max compression load in Kg deflection in mm.

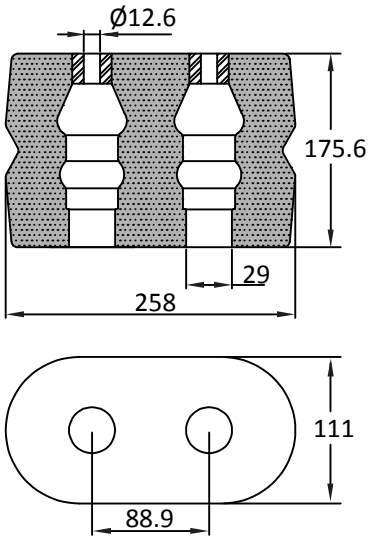
This information is for guidance only. Customers are recommended to contact us for further technical information on products and applications.
We reserve the right to alter specifications or withdraw products without notice.

Hollow Rubber Springs

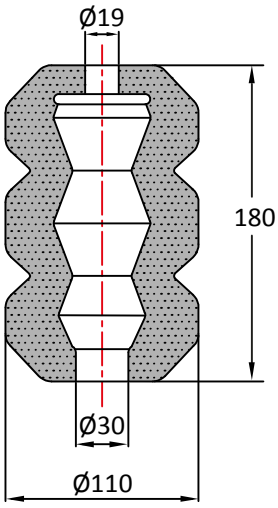
Triple Convolution and Rectangular



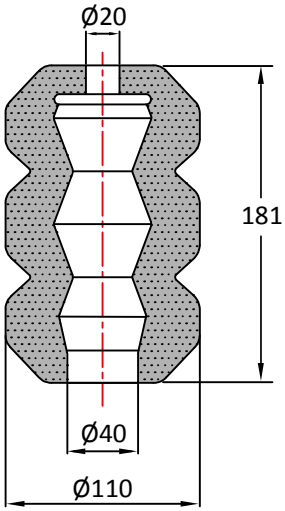
HRS225



HRS260



HRS110180



HRS110181

Part No	Nominal Static Load (Kg) i.e. as a Suspension Spring	Max Continuous Static Load (Kg) i.e. as an Assister	Max Load (Kg) Triple and Rectangular	Deflection at Max Load (mm)
HRS225	3500	10600	15900	45
HRS260	2000	9500	16595	110
HRS110180	215	915	1960	90
HRS110181	300	1275	2250	90

Max compression load in Kg deflection in mm.

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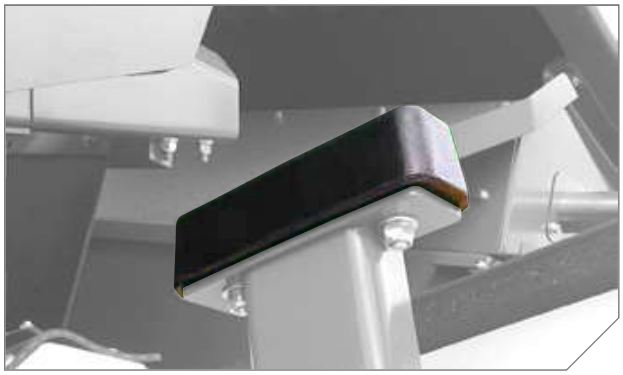
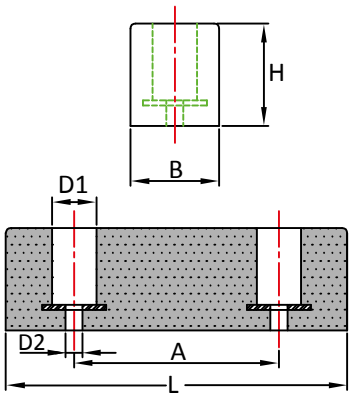
Truck Buffers

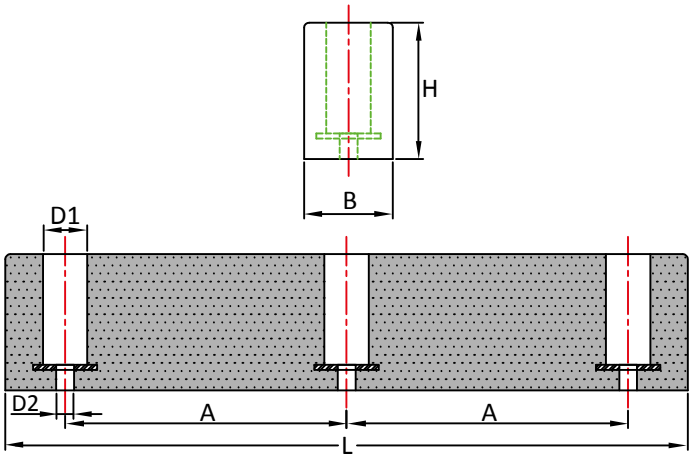
Truck buffers are designed to absorb shock and impact forces from moving machinery parts, and to protect vehicles from damage whilst manoeuvring.

Applications:

- Commercial Vehicles
- Construction Vehicles
- Agricultural Machinery
- Trailers
- Vehicle Loading Bays







Part No	H	L	B	Holes	A	D1	D2
BS-1	15	125	40	2	60	20	8
BS-2	40	125	40	2	60	20	8
BS-3	50	125	43	2	60	20	8
BS-4	70	125	43	2	60	20	8
BS-198	50	198	54	2	118	25	10
BS-5	60	200	52	2	120	26	10.5
BS-6	80	200	52	2	120	26	10.5
BS-7	60	300	52	3	115	26	10.5
BS-8	80	300	52	3	115	26	10.5
BS-9	60	400	52	3	165	26	10.5
BS-10	80	400	52	3	165	26	10.5
BS-11	60	315	35	3	126	22	10.5

Max compression load in Kg deflection in mm.

Tipper Body Pads

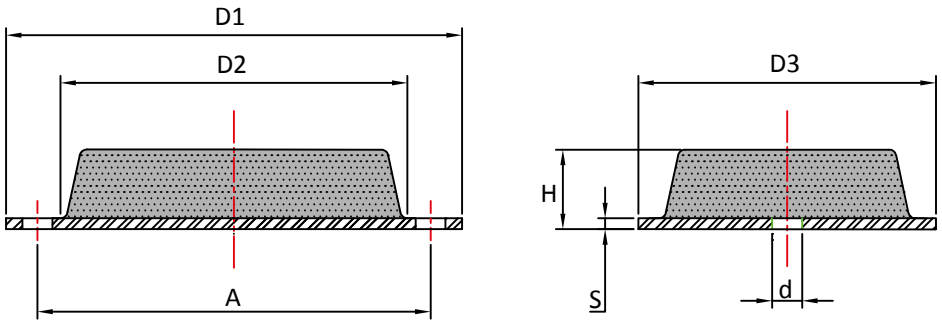
Tipper Body Pads are designed to support articulated tipping vehicles bodies and trailers. They are typically used in multiples to evenly distribute the load over the chassis and also to stop metal to metal contact between the vehicle body and chassis.

Advantages:

- Special Rubber formulation for Hostile Environments
- High Abrasion & Wear Resistance Rubber
- Aluminium or Mild Steel Plates
- Pre-Drilled Holes for ease of installation

Applications:

- Tipping Trailers (Body Pads)
- Commercial Vehicles
- Construction Equipment, ADT's & Dump Trucks
- Agricultural Equipment



Part No	A	H	D1	D2	D3	d	S
PB12075-STEEL	150	14	180	120	75	6.8	3
PB1167550	151	50	180	116	75	6.8	4
PB1137434	151	34	180	116	75	6.8	4
PB30075-ALU*	-	45.5	350	300	75	-	5
PB28675-STEEL	-	45.5	350	300	75	-	5

*Manufactured in Aluminium

Max compression load in Kg deflection in mm.

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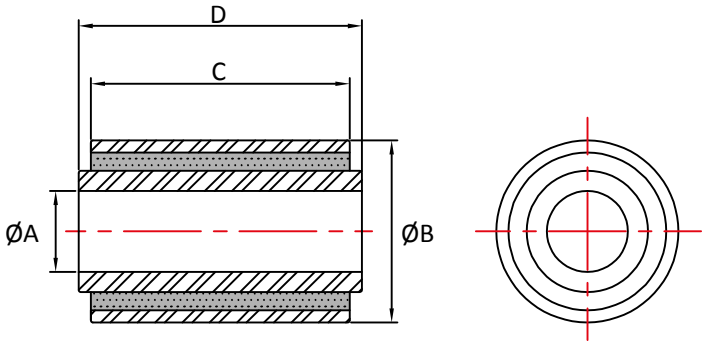
IOS Bushes

IOS bushes are manufactured from high quality rubber which is bonded between two concentric sleeves. Designed to allow torsional, radial and axial movement within a system, whilst also offering vibration reduction properties.

They are manufactured in such a way as to provide high durability during dynamic loads and prolonged service life. IOS bushings require no lubrication and are maintenance free.

Applications:

- Vehicle suspension
- Pivot bearings
- Mechanical linkages
- Cab mounts
- Engine mounts
- Off-road vehicles
- Military applications
- Construction Equipment



Custom Polyurethane Bushes also available

Part No	A	B	C	D
IOS08192830	8	19	28	30
IOS10222420	10	22	24	20
IOS12222528	12	22	25	28
IOS1302	7.9	22.2	25.4	27.8
IOS10252025	10	25	20	25
IOS12252428	12	25	24	28
IOS8.5262525	8.5	26	25	25
IOS10273840	10	27	38	40
IOS1460	12.7	28.6	25.4	28.6
IOS12301718	12	30	17	18
IOS12303640	12	30	36	40
IOS17343934	17	34	39	34
IOS15354550	15	35	45	50
IOS15352530	15	35	25	30
IOS20384046	20	38	40	46
IOS1823	20.07	38.18	34.9	41.3
IOS20406266	20	40	62	66
IOS25404040	25	40	40	40
IOS25403030	25	40	30	30
IOS20456063	20	45	60	63
IOS20454046	20	45	40	46
IOS204559.562.5	20	45	59.5	62.5
IOS20456470	20	45	64	70
IOS16454652	16	45	46	52
IOS20463542	20	46	35	42
IOS0877	25.4	46.7	25.4	34.9
IOS15473137	15	47	31	37
IOS2847110116	28	47	110	116
IOS1004	15.9	47.6	44.5	50.8
IOS24506470	24	50	64	70
IOS30506066	30	50	60	66
IOS25503034	25	50	30	34
IOS255	25	50	65	68
IOS25508085	25	50	80	85
IOS25504045	25	50	40	45
IOS25507985	25	50	79	85
IOS25506568	25	50	65	68
IOS1005	28.58	54.6	114	123.8
IOS15.5553016	15.5	55	30	16
IOS0989	28.57	57.15	85.73	88.9
IOS30606068	30	60	60	68
IOS40624042	40	62	40	42
IOS36626571	36	62	65	71
IOS30637266	30	63	72	66
IOS38648088	38	64	80	88
IOS30656070	30	65	60	70
IOS40658088	40	65	80	88
IOS35655060	35	65	50	60
IOS407112115	40	70	112	115
IOS1284-70	44.45	76.2	76.2	82.55

Max compression load in Kg deflection in mm.

Eccentric Bushes

Eccentric Bushes are manufactured from two metal sleeves which are eccentrically offset in the radial direction. This offset allows for a larger proportion of the rubber section to be orientated in the normal direction of load, allowing for relatively large radial deflections to be achieved, whilst maintaining excellent motional control characteristics.

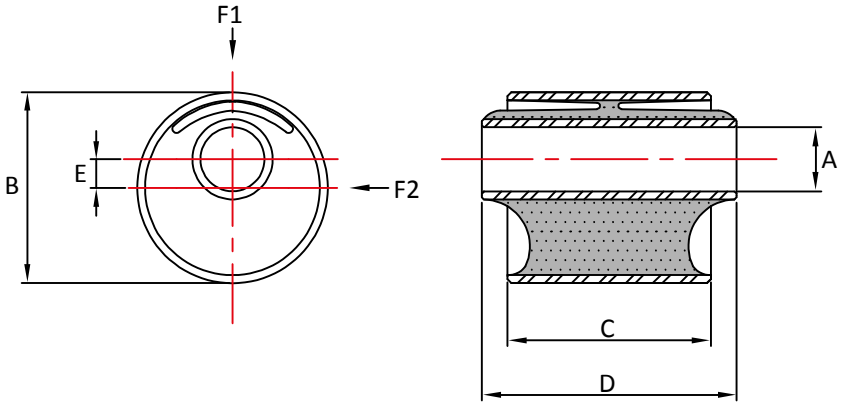
Eccentric bushes are robust in design, fail-safe, and suitable for ROPS and FOPS cabs (subject to approval).

Advantages:

- Excellent Vibration Reduction
- Robust Design – Ideal for Transit Shock
- ROPS & FOPS
- Fail Safe

Applications:

- Cab Mountings (Tilting Cabs)
- Engine Mountings
- Earth Moving Vehicles
- Agricultural Vehicles



Part No	A	B	C	D	E	F1			F2
						Stiffness (N/mm)	Max Deflection (mm)	Max Load (kg)	Stiffness (N/mm)
ECC1270-45	16	47.6	50.8	63.5	7.1	675	2	140	1350
ECC1270-60	16	47.6	50.8	63.5	7.1	1040	2	215	2080
ECC1270-75	16	47.6	50.8	63.5	7.1	1200	2	245	2400
ECC2174-45	24	75.3	51.0	70	10.5	750	3.5	270	600
ECC2174-60	24	75.3	51.0	70	10.5	1200	3.5	325	910
ECC2174-75	24	75.3	51.0	70	10.5	1760	3.5	630	1400
ECC1165-45	25.4	88.9	66.7	79.4	14.3	475	3.8	185	640
ECC1165-60	25.4	88.9	66.7	79.4	14.3	900	3.8	350	990
ECC1355-45	43.7	101.6	63.5	72.4	9.5	682	3.5	245	1150
ECC1355-60	43.7	101.6	63.5	72.4	9.5	1300	3.5	465	2200

Max compression load in Kg deflection in mm.

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Spherical Bushes

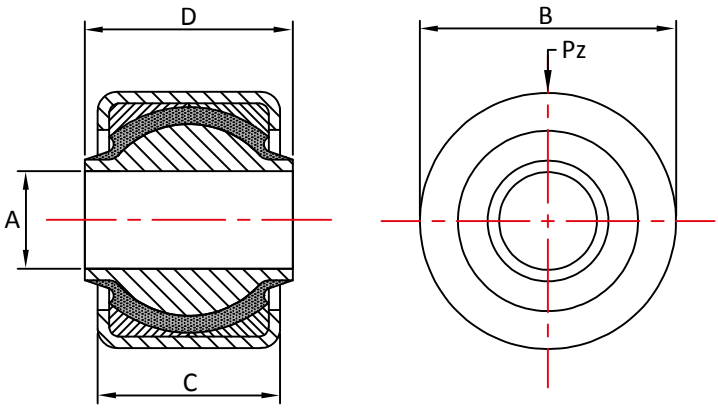
Compact and Heavy Duty flexible bearing - Spherical Bushes are able to accommodate high loads and allow movement in both the torsional and conical directions. No lubrication is required and they are completely maintenance free.

Advantages:

- High Load Capacity
- Allow Multi Axis Movement
- Reduce Stress on Assemblies
- Fail Safe Design

Applications:

- Off Road Vehicles
- Construction Equipment
- Rail applications
- Suspension Control Links
- Agricultural Equipment
- "A" frame bushes



Part No	A	B	C	D	Pz (KN)
SB1316	25.4	66.7	48.0	54.2	34.0
SB2166	25.4	66.8	47.6	54.2	34.0
SB2201	25.4	66.7	47.6	54.0	34.0
SB2106	28.6	90.5	70.0	76.2	58.0
SB1285	38.1	104.8	76.2	82.6	80.0

Max compression load in Kg deflection in mm.

Flanged Bushes

Utilising the rubber primarily in shear, Flanged Bushes have a high radial to axial stiffness ratio and are therefore ideal for controlling horizontal movement.
They are a relatively stiff mounting, suitable for carrying loads of up to 1100Kg per mounting and are ideal for high frequency vibrations. Using top and bottom washers provides a fail-safe installation.

Advantages:

- Controls Horizontal Movement
- Ideal for High Frequency Vibration
- High Load Capacity
- Fail-Safe Design

Applications:

- Engines
- Vehicles
- Radiators
- Agriculture
- Construction Equipment

Fig 1

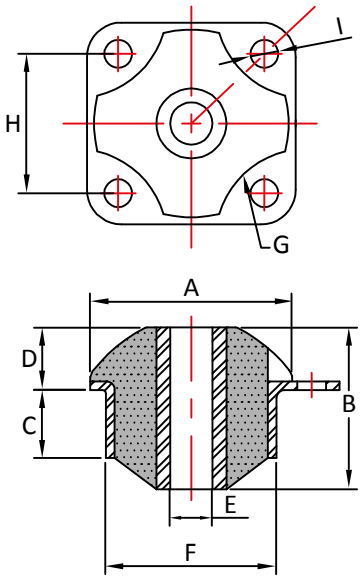


Fig 2

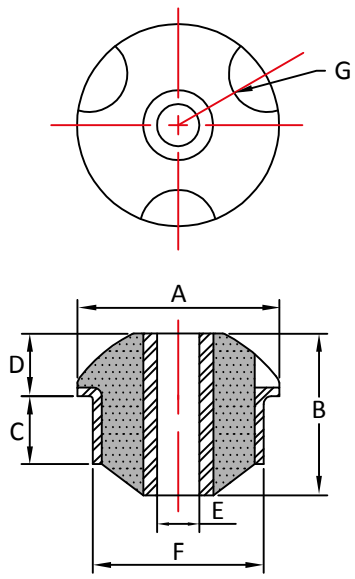
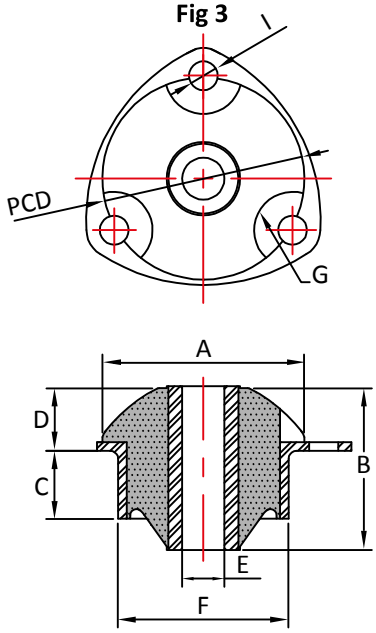


Fig 3



Part No	Fig	A	B	C	D	E	F	G	H	I	PCD	45 Shore A		60 Shore A		75 Shore A	
												Kg	mm	Kg	mm	Kg	mm
FB00	1	36	28	12	11	8.1	26	12	26	5.2	-	20	1.5	30	1.2	40	0.8
FB02	2	48	51	24	18	12.5	38	8	-	-	-	65	2.5	85	2	110	2
FB20	2	70	55	27	19	18.5	56	10	-	-	-	100	3.5	150	3	180	2.5
FB21	2	70	70	39	19	18.5	56	10	-	-	-	125	3.5	200	3	250	2.5
FB40	2	100	90	42	28	22.5	74	19	-	-	-	200	5	350	4.5	400	3.5
FB41	2	100	110	49	28	22.5	74	19	-	-	-	225	5	375	5	450	3.5
FB70s	2	165	98	36	46	60.2	119	22	-	-	-	450	6.5	800	5.5	1000	3.5
FB70	2	165	140	66	46	60.2	119	22	-	-	-	450	6.5	900	5.5	1100	3.5
FB10	3	57	47	18	19	12.1	49	11	-	8.2	69	70	4	100	3	120	2
FB66	3	90	93	46.5	28	20.5	66.5	18	-	8.5	95	125	4.5	220	4	290	3.5

Max compression load in Kg deflection in mm.

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INDUSTRIAL PRODUCTS

Custom and Miscellaneous

Jubo Couplings

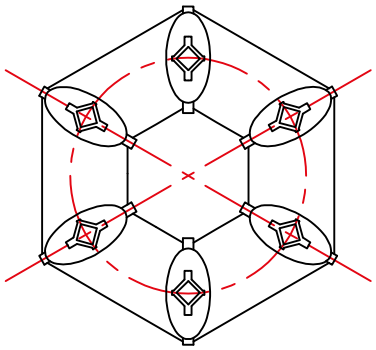
Jubo Couplings comprise of a polygon shaped rubber section with moulded metal inserts. After moulding of the rubber a retaining band is fitted to the Jubo Coupling to pre-compress the rubber, which is then removed, after installing onto the equipment.

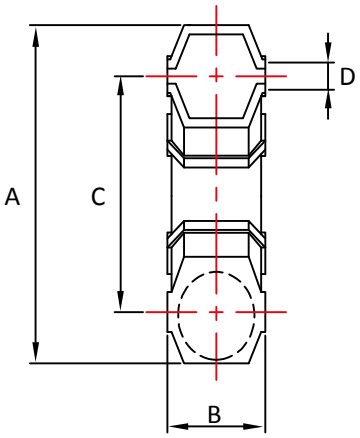
Advantages:

- Reduces Driveline Vibration
- Accommodates angular misalignment
- East to Install

Applications:

- Construction & Off Road Vehicles
- Military Vehicles
- Automotive & Commercial Vehicles





Part No	Normal** Torque Load	RPM Maximum	A	B	C*	D
JC220.101	157Nm	4500	143	46	100	12
JC220.102	245Nm	3500	181	51	132	14
JC220.103	343Nm	3000	202	54	150	18
JC220.105	687Nm	2400	263	68	190	20
JC220.555	40Nm	6000	91	28	65	8
JC220.1026	88Nm	5000	117	32	85	10
JC220.524	490Nm	2800	232	62	170	20

* With Retaining Band Fitted

** Max Torque is 2.5 x Normal Torque

Max compression load in Kg deflection in mm.

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