KORFUND DYNAMICS

...a solution for every isolation problem

KORFUND DYNAMICS
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Korfund Dynamics, (an Aeroflex, Inc. subsidiary company) is a manufacturer of shock, vibration and structureborne noise isolation products for stationary, mobile and marine equipment.

Engineering, sales and production facilities are located in Bloomingdale, NJ, with a total work force of 100 and approximately 20,000 sq. ft. of manufacturing space.

Korfund Dynamics product line includes spring, elastomer, cable and pad-type isolators. Inventories of standard products are maintained for off-the-shelf delivery. Production tooling exists for all standard series and large quantities can be supplied in two to four weeks from order placement.

Engineering development and test facilities include computerized testing for static and dynamic shock and vibration evaluation. If one of Korfund Dynamics' standard products is not suitable for a particular application, our engineering group will work closely with the customer to develop a modified standard or special design to provide the optimum isolation system. Specially engineered designs can usually be developed with prototype tooling in four to six weeks.

Korfund Dynamics has developed new products primarily to serve the industrial OEM markets. These new products include a range of elastomer isolator designs offering lightweight, rugged, low-profile installations. Typical applications include motor generator sets, gas and diesel engines, radiators and charge air coolers, operator cabs and all types of industrial equipment.

The following is a summary of the Products/Benefits provided by Korfund Dynamics.

Spring Isolators

- Low natural frequency. (Static deflections up to 5 in.)
- Wide load range to 25,000 lbs.
- Available with adjustable snubbing.
- Available with leveling hardware.
- Available for seismic requirements.

Elastomer Isolators

- Excellent for combined vibration and shock isolation.
- Available in designs with up to 1/2" deflection.
- Available in load ranges to 5,000 lbs.
- Reduces structureborne noise.
- Available for seismic requirements.

Cable Isolators

- All metal construction resists destructive environments.
- All axis isolation.
- Compact, low-profile design.
- Excellent vibration damping
- Large dynamic displacement attenuates heavy shocks.

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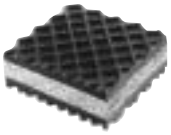
Elastomer Isolators

LF Series

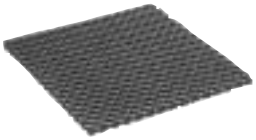
RB Series

RSM Series

Pad Type Mounts



Elasto-Rib Pad



Korpad

Spring Type Isolators

CE Series

KMS Series

Special Type Isolators

CCA Series

AEQM Series

KORFUND APPLICATION/SELECTION GUIDE

ISOLATOR TYPE

	ELASTOMER												SPRING								CABLE		PAD		
APPLICATION	MB	✶ R/RD	RDC TTB	✶ VLM	CM	SB RBX RB	LFS LR	LLF LF	GR/GC	✶ LD	✶ BMX BM	RSM	✶ L	✶ S	KMS	✶ CE	✶ SNE	✶ UN	AEQM	AWMR	CB	CCA	✶ Cork	✶ Elast	✶ Fabriply
Actuators						X		•	X													•		•	
Air Conditioners	•	•	•		•	•					•		•			X			•	•	•	X		•	
Cabs (Vehicle)			•			X	•	X													•			•	
Computer Equip.		X		•	•	•	•	•	X	•	•					•			•	•	•	X		•	
Electronics/Instr.		X	•	•	•		•	•	•	X	•					•						X		•	
Engines/Drive Trains	•		X			X	•	X					•	•	•	•	•				•	•			
Engine Gen. Sets	•	•	X			•	•	X			•	X	X	X	X	X	X		•	•	X	•		•	
Fans/Blowers	•	X	X	•	•	•	•	•	•	•	X	•	X			X	•		•	•	•	X	•	•	•
Hammers																		X			X		X		•
Machinery/Heavy		X	•	•		•		•				•	X	X	•	•	•	•	•	•	X		•	•	•
Marine Engs./Gens.	X		X		•	•	•	X		•		X		•	X						X	•			
Motors	•	X	X		•	•	•	•	•	•	X	•		•	•		•	•	•	•		•	•		•
Pumps/Compressors		X	X		•	•	•	•	•	•	X	•	X	X	•	X	X		•	•	•	•	•	•	•
Radiators					•	X	•	•	•												X		•		
Roll Grinders																		X			•				
Seismic			•			•		•				X			•				X	X	•				
Shakers	•		•								•		X	X							X		•	•	
Shipping Containers						•	•	X			•										X	X		•	
Transformers	•	X	X		•	X	•	•	•	•	X	•				X	•				•	X	•	X	
Vibrating Screens						•	•	•		•	X		X	•							X	•		•	

• = Recommended X = Best Selections in Category ✶ = Not recommended for Mobile Installations

Vibration Control Methodology

A simple mounting system (see Fig. 1) consists of a mass (M) supported on linear springs having a stiffness K. The idealized system includes a parallel damping element, having a critical damping ratio C/Cc. The Mass is assumed to be symmetrically supported about its center of gravity, and to vibrate only in the vertical direction.

If the foundation is vibrated with a sinusoidal input over a frequency range of, say, 5 to 500 Hz, and if we measure the response of the mass as well as the input at the foundation at every frequency, we have a measure of performance for the simple mounting system. The ratio of the output at the mass to the input at the foundation is referred to as transmissibility. It is defined by the equation:

$$T = \sqrt{\frac{1+[2(f_d/f_n)\,(C/C_c)]^2}{[1 - f_d^2/f_n^2]^2 + [2(f_d/f_n)\,(C/C_c)]^2}}$$

A transmissibility greater than one means the system amplifies the vibration input, while a value less than one means that the mounting system reduces, or attenuates, the vibration input.

A review of this equation shows that transmissibility is dependent upon the ratio f^d/f^n and also on the critical damping ratio (C/C^c). The numerator (f^d) is the excitation frequency determined by the dynamic environment. The denominator (f^n) is the natural frequency of the mounting system, and is a function of the isolators as well as the isolated mass. The critical damping ratio is an indication of the degree of damping provided by the mounting system. And this is determined by the isolator design and materials.

Five curves (see Fig. 2) relating transmissibility to frequency ratio (f^d/f^n) show damping ratios varying from 0.01 to 0.5. At a low frequency ratio, transmissibility is equal to, or slightly greater than 1, meaning that the mass moves with the foundation regardless of the amount of damping present in the system.

As frequency ratios increase, transmissibility increases to a maximum at the natural frequency of the mounting system, where there are large differences in transmissibility due to damping. This is the region where the benefit of damping is seen – damping limits the amplification of forces at the natural frequency of the isolation system, and limits the resultant displacements.

At a frequency above the natural frequency of the mounting system, there is a crossover point where the transmissibility equals 1. This crossover theoretically occurs at 1.414
times the natural frequency, and is theoretically independent of damping.

As frequency increases further, the system moves to a region of isolation, where vibration input is attenuated, the degree of attenuation increasing with increasing frequency.

At the higher frequencies, damping affects transmissibility. In particular, the high frequency attenuation is less for the mounting system with greater damping.

For lightly damped systems, the earlier equation can be reduced to:

$$T = \left| \frac{1}{1- (f_d/f_n)^2} \right|$$

Except at resonance, where transmissibility equals infinity, this simpler equation will provide reasonable estimates of transmissibility for critical damping ratios less than about 0.10.

For any isolator with negligible damping, the static deflection of an isolation system is related to the vertical natural frequency by the following equation:

$$\delta st = \frac{9.8}{f_n^2}$$

This last equation assumes that the dynamic stiffness of the isolation system is equivalent to the static stiffness of the system, which is reasonably correct for isolators with negligible damping, such as steel springs. However, isolators with a significant amount of damping exhibit dynamic stiffness, and the resultant natural frequency is higher than for an undamped spring with the same static deflection.

Several aspects of vibration control are combined in Figure 3. The horizontal scale shows the disturbing frequency in cycles per minute (divide by 60 for cycles per second, or Hz), while the leftmost scale shows the isolation system natural frequency, also in cycles per minute. Lines at an angle of 45° show transmissibility. With this nomenclature,
1 percent transmissibility is a transmissibility of 0.01, etc. These lines assume a critical damping ratio (C/C^c) of zero –
no damping. The second scale from the left shows static deflection. So, from this curve it is possible to determine the expected transmissibility for any value of static deflection at any given disturbing frequency.

This discussion regarding vibration isolation has been limited so far to a mass symmetrically supported about its center of gravity and vibrated only in the vertical direction. In practice, most installations exhibit significant horizontal excitations. Rocking modes are evidenced by a shimmying-type motion. The lower frequency mode acts as a vibration centered about a point well below the center of gravity, while the upper frequency mode acts as a vibration centered closer to the center of gravity.

In the presence of rocking modes, a transmissibility versus frequency curve will show two discernible peaks, one or both showing a frequency range of amplification. Damping has the same effect on the transmissibility curve with rocking modes as it does on the theoretical transmissibility curves

shown in Fig. 2. Specifically, increased damping decreases transmissibility at both resonant peaks, and increased damping also increases transmissibility at higher frequencies.

Factors which influence rocking modes are: spacing between isolators, axial and horizontal stiffness of isolators, mass characteristics (inertia and center of gravity) and damping.

Properly selected and applied, structural damping treatments can function effectively over a wide frequency range. For applications where a single frequency requires a reduction in amplitude, a tuned damper can be effective. A tuned damper, or dynamic vibration absorber, consists of a spring-mass system with damping, having a natural frequency close to the offending frequency. Located near an anti-node on the vibrating structure, a tuned damper vibrates out of phase with the vibration to be eliminated, enforcing a null at the offending frequency, resulting in two peaks of reduced amplitude.

Correct implementation of vibration control techniques requires the consideration of all aspects of available methods. Methods used to reduce vibrations at the source should be implemented where practical. Structural effects should also be considered, including the effects of both stiffness and damping. Vibration isolation completes the arsenal of tools available to the engineer, and it should be evaluated at the design stage.

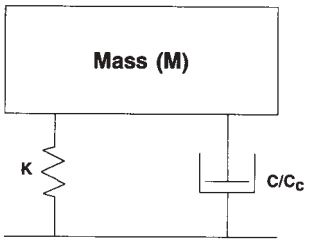


Figure 1: Schematic of simple mounting system

Figure 2: Transmissibility vs. frequency ratio and C/C_C

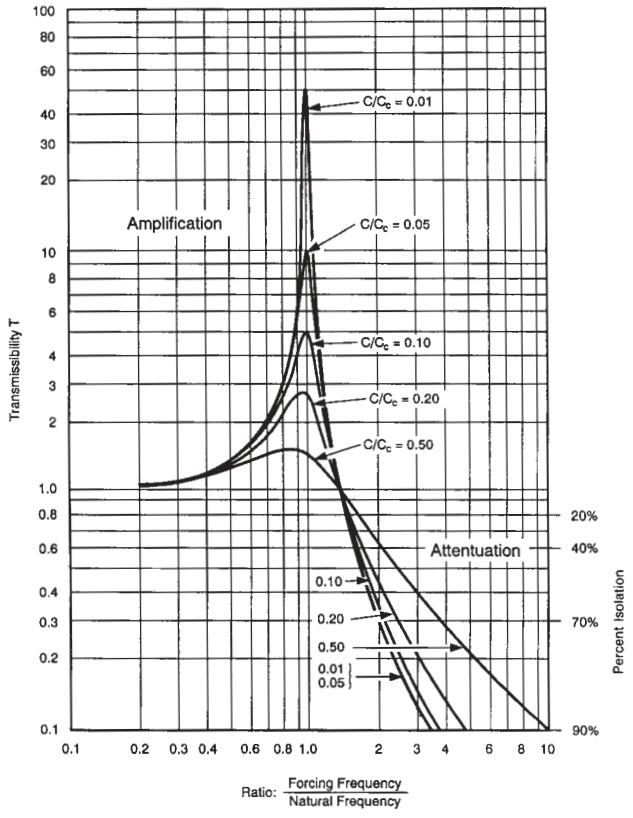
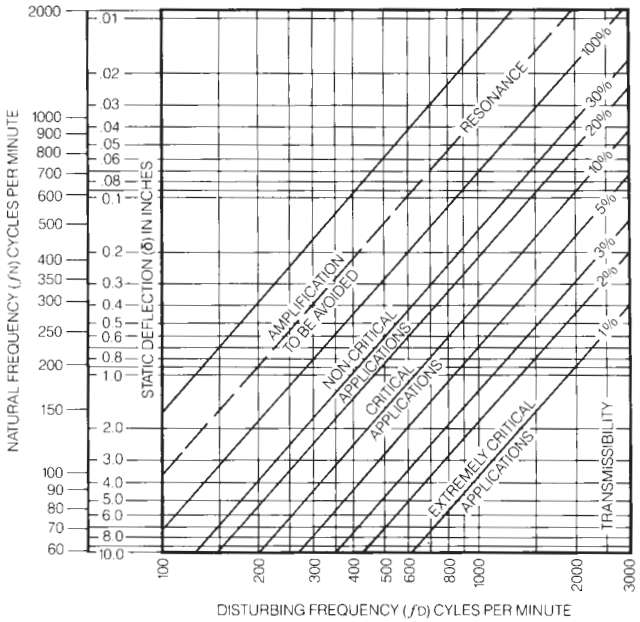


Figure 3: Vibration transmissibility chart for $C/C_C = 0$



$$\% \text{ TRANSMISSIBILITY} = 100 \left[\frac{1}{\left(\frac{f_d}{f_n} \right)^2 - 1} \right]$$

TO DETERMINE THE EFFICIENCY OF ISOLATION SUBTRACT THE % TRANSMISSIBILTY FROM 100%

Vibration Control Definitions

Acceleration
Acceleration is the time rate of change of velocity. Commom units are inches per second per second (in/sec^2), centimeters per second per second (cm./sec^2), and g's.

Center of Gravity
The point of support at which a body would be in balance.

Compression
When a body, such as a spring, is compressed from its free configuration, it is said to be in compression.

Damping
Damping is the dissipation of energy with time or distance. Three types of damping are frequently encountered: coulomb, hysteretic and viscous.

Damping Factor
A dimensionless ratio defining the amount of damping in a system. Generally idenfified as C/C_C or ξ.

Decade Band
A decade is the interval between two discrete frequencies having a basic frequency ratio of ten. For example, frequencies of 7 Hz and 70 Hz, are said to be one decade apart.

Decibel
The decibel is a dimensionless unit of level which denotes the ratio between two quantities, such as Power, Pressure or Acceleration.

Deflection
Deflection is the distance an elastic body or spring moves when subjected to a static or dynamic force. Typical units are inches or mm.

Displacement
Displacement is the change of position of a body, usually measured from the mean position of rest. Common units are inches (Double Amplitude) or mm (Double Amplitude). Displacement is related to acceleration by frequency.

Elastomer
A generic term which encompasses all types of rubber, natural or synthetic. There are numerous families of elastomers. The type of elastomer chosen for any application depends on the environment in which the elastomer will be used.

Fragility
Fragility is the amount of shock or vibration which a piece of equipment can withstand. Isolation systems are designed or selected to limit the transmission of forces to the stated fragility.

Free Vibration
The oscillation of a system when there are no externally applied forces.

Frequency
The number of complete cycles of oscillations per unit of time. The frequency of a function periodic in time is the reciprocal of the period. Common units are Hz or CPS (Cycles per second).

Mass
Weight in pounds divided by the gravitational constant, (g=32.2ft./sec^2 or 386 in./sec^2).

Modulus
Modulus is a material characteristic which is related to the stiffness of a mount. Modulus is the ratio of stress to strain in the elastomer at a given loading condition. Compression stiffness is related to compression modulus (E) and shear stiffness is related to shear modulus (G). Typical units are lb./in.^{2}.

Moment of Inertia
The mass moment of inertia of a rigid body about a given axis in the body is the sum of the product of the mass of each volume element and the square of its distance from the axis. Typical units are inch-pound-sec^2.

Natural Frequency
In an oscillating system, the frequency at which the system will vibrate. This is a function of the weight of the isolated equipment and the stiffness of the isolation system.
Typically designated as f_n. Common units are Hz or CPS.

Octave Band
An octave is the interval between two discrete frequencies having a frequency ratio of two. For instance, frequencies of 25 Hz and 50 Hz are said to be separated by one octave.

Period
The period is the time required for a periodic motion to repeat itself. The common unit is seconds. Period is the inverse of frequency.

Random Vibration
Oscillations whose instantaneous amplitude can only be described as a random variable at any given instant in time. Typical unit is Power Spectral Density - PSD - in terms of g^2/Hz.

Resonance
Resonance occurs when the frequency of excitation is equal to the natural frequency of the system. When this happens, the amplitude of vibration increases and is only limited by the amount of damping present in the isolation system.

Shear
When a body, such as a rubber mount, is subject to equal and opposite forces which are not in line, the forces tend to shear the body in two. The stiffness of a rubber mount subjected to this type of loading is referred to as shear stiffness.

Shock
Shock is a transient condition where the equilibrium of a system is disrupted by a sudden applied force or increment of force, or by a sudden change in the direction or magnitude of a velocity vector.

Shock Pulse
A primary disturbance characterized by a rise and decay of acceleration in a relatively short time. Shock pulse is generally shown as a plot of acceleration vs. time.

Sinusoidal Vibration
Oscillations in which motion is periodic with time in the form of a sine curve. Rotating equipment generate vibrations which are frequently considered as sinusoidal.

Stiffness
The force required to deflect an isolator a unit distance. Stiffness is the slope of a curve showing Force on the Y-Axis and Deflection on the X-Axis. Typical units are pounds/inch.

Transmissibility
Transmissibility is the ratio of the transmitted force to the imposed force, or output divided by input.

Velocity
Velocity is a vector that defines the time rate of change of displacement. Typical units are in./sec. Velocity is related to acceleration or displacement by frequency.

LF Series

Low Frequency, Rugged, Elastomer Shock & Vibration Isolation Mounts

Features/Benefits

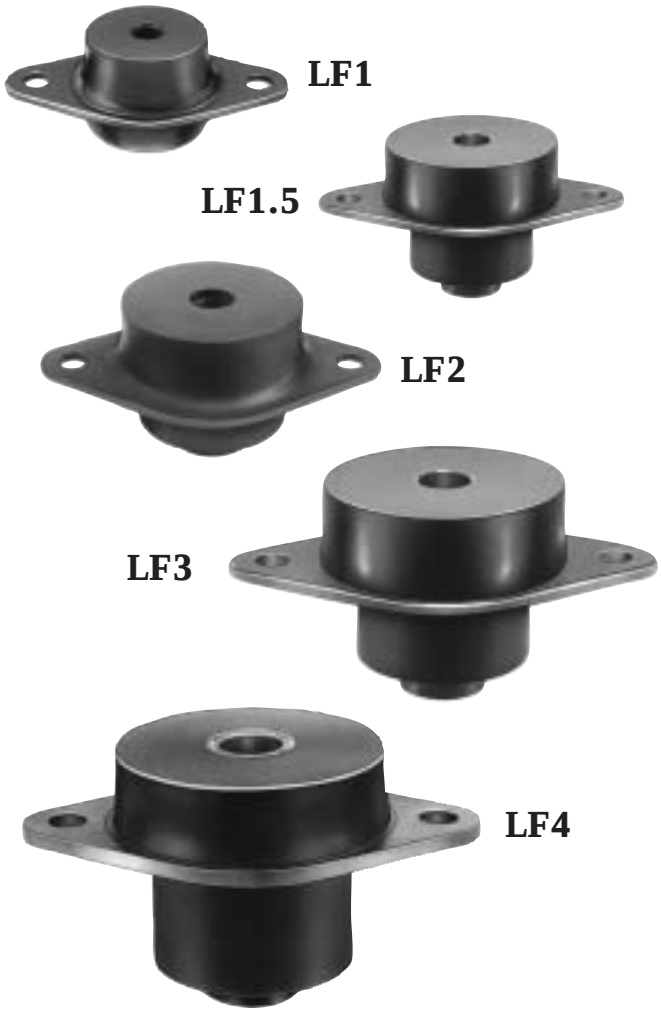
- Static Load Ranges from 40–2800 lbs.
- Low Profile
- Rugged Construction
- All bonded construction
- Axial and radial loading
- Fail-safe design with snubbing washers
- Axial to radial stiffness – approximately 1:1
- Low natural frequency (approx. 10 Hz at max. load)
- Structureborne noise attenuation

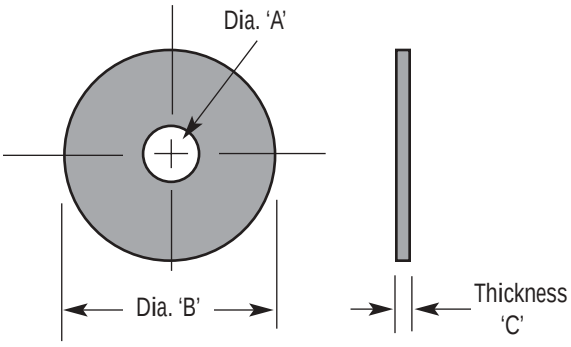
Construction/Material Data

- Structural sections – carbon steel/sintered metal
- Corrosion resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = 0.1 (transmissibility approx. 5:1 at resonance)

Applications

- Highway and off-highway vehicles
  - Isolate engines, cabs and radiators
- Motor generators and compressors
- Pumps and centrifuges
- Portable equipment and machinery
- Marine equipment and power plants
- Fans and blowers





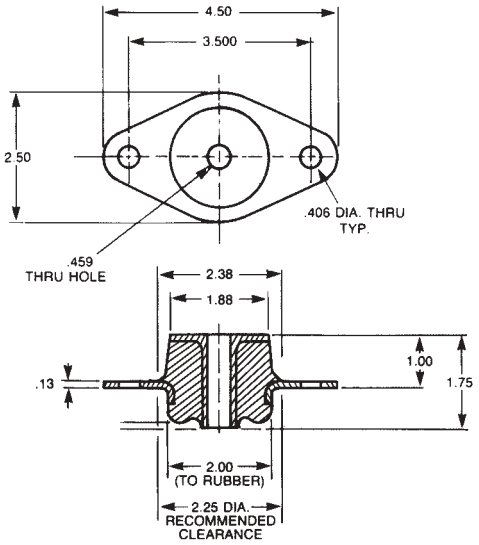
LF Series Snubbing Washers* Dimensions

	Dia. 'A'	Dia. 'B'	Thickness 'C'	Part No.
LF1 Series	.45	2.00	.13	148099-5
LF1.5 Series	.51	2.00	.13	148099-18
LF2 Series	.64	2.25	.15	148099-6
LF3 Series	.76	2.50	.18	148099-7
LF4 Series	1.01	3.25	.25	148099-17

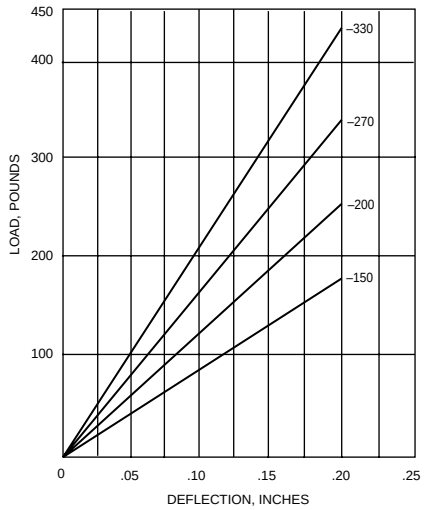
* Zinc Plated Carbon Steel

LF1 Series

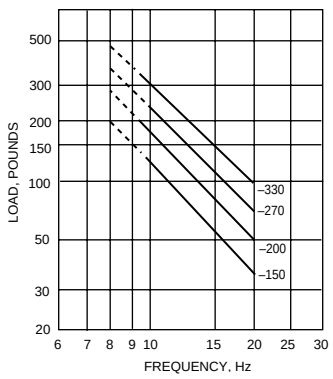
Part Number	Axial Static Load, Max. (pounds)	Radial Static Load,Max. (pounds)
LF1 - 150	150	100
LF1 - 200	200	150
LF1 - 270	270	180
LF1 - 330	330	220



AXIAL LOAD Vs. DEFLECTION

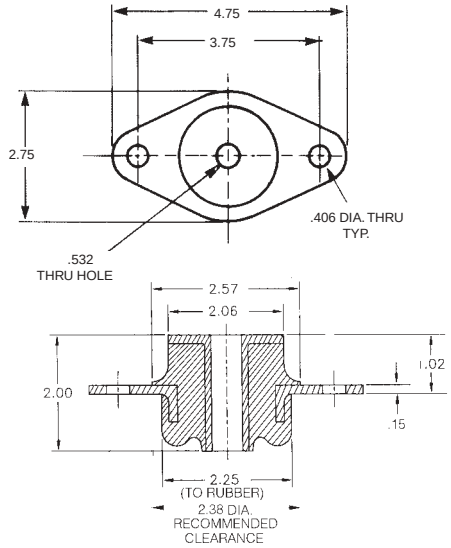


AXIAL LOAD Vs. NATURAL FREQUENCY

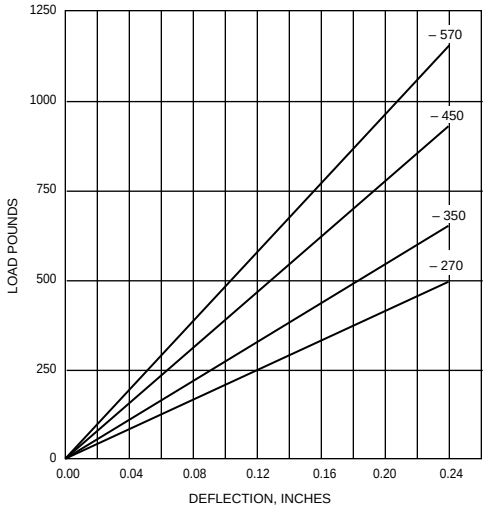


LF1.5 Series

Part Number	Axial Static Load, Max. (pounds)	Radial Static Load,Max. (pounds)
LF1.5 - 270	270	180
LF1.5 - 350	350	230
LF1.5 - 450	450	300
LF1.5 - 570	570	380



AXIAL LOAD Vs. DEFLECTION



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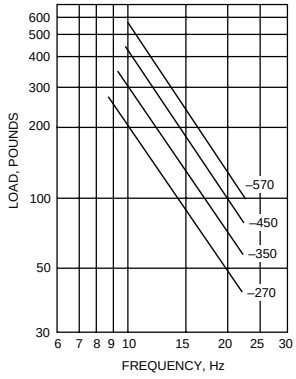
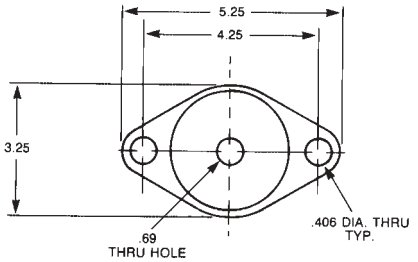
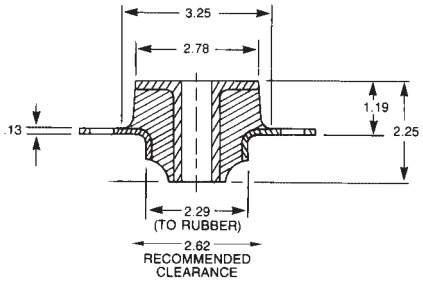
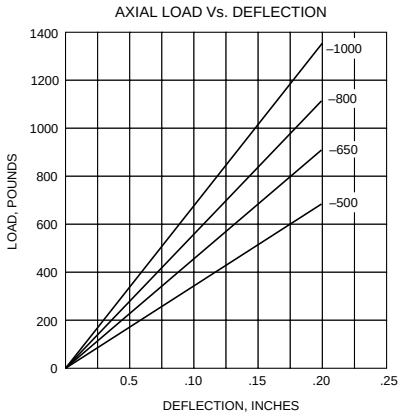


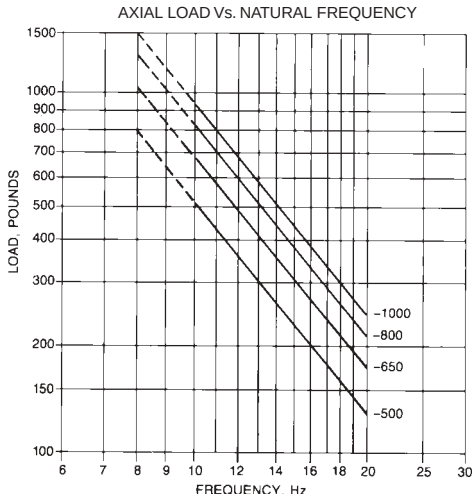
LF2 Series

Part Number	Axial Static Load, Max. (pounds)	Radial Static Load,Max. (pounds)
LF2 - 500	500	330
LF2 - 650	650	430
LF2 - 800	800	530
LF2 - 1000	1000	660



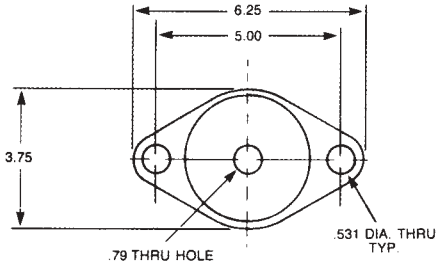


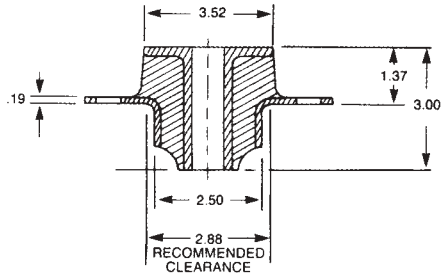


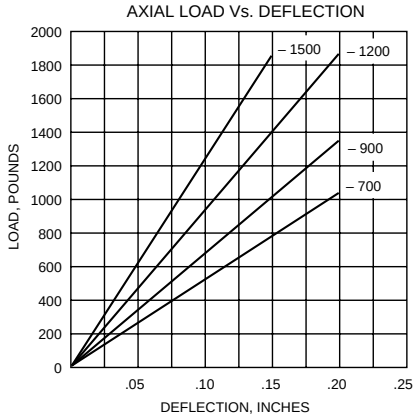


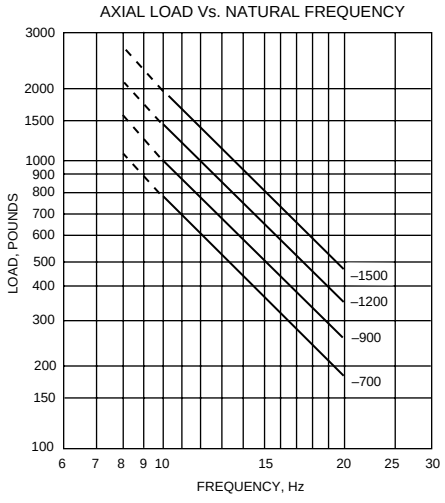
LF3 Series

Part Number	Axial Static Load, Max. (pounds)	Radial Static Load,Max. (pounds)
LF3 - 700	700	450
LF3 - 900	900	600
LF3 - 1200	1200	800
LF3 - 1500	1500	1000



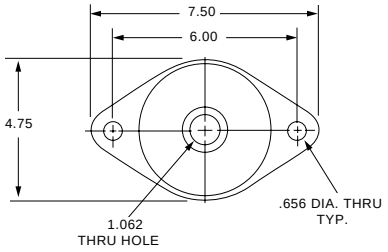


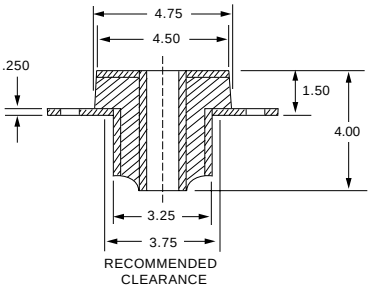




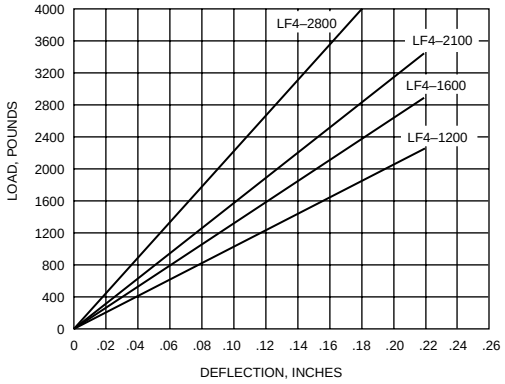
LF4 Series

Part Number	Axial Static Load, Max. (pounds)	Radial Static Load,Max. (pounds)
LF4 - 1200	1200	800
LF4 - 1600	1600	1000
LF4 - 2100	2100	1400
LF4 - 2800	2800	1800

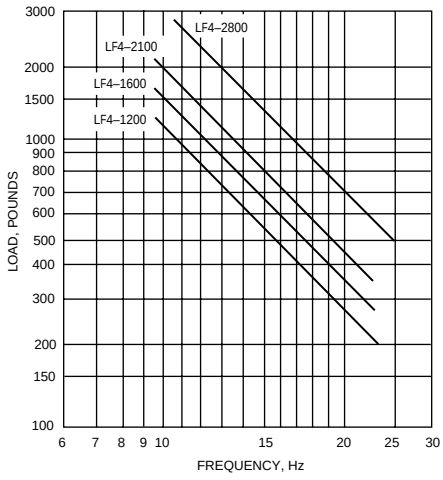




AXIAL LOAD Vs. DEFLECTION

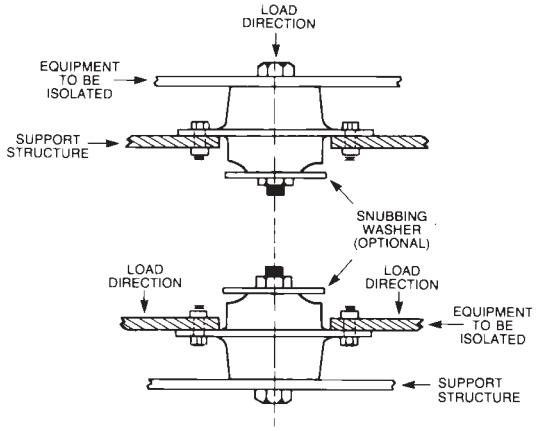


AXIAL LOAD Vs. NATURAL FREQUENCY

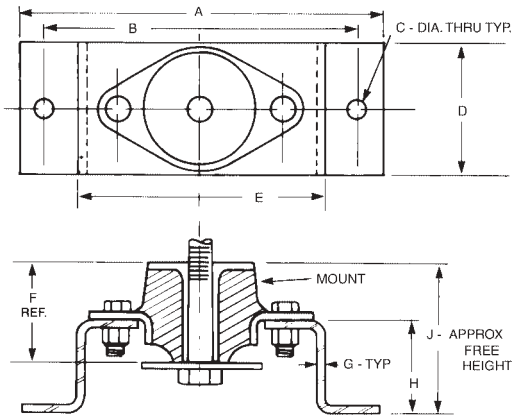


LF Series Installation Data

Installation Configurations



Optional Standoff Mounting



Dimensions

Mount	A	B	C	D	E	F	G	H	J
LF1	9.00	7.50	0.44	3.00	5.50	1.75	0.19	1.75	2.75
LF1.5	NOT CURRENTLY AVAILABLE								
LF2	10.00	8.50	0.53	3.75	6.50	2.25	0.25	2.25	3.44
LF3	11.00	9.50	0.56	4.00	7.50	3.00	0.31	3.00	4.37
LF4	NOT CURRENTLY AVAILABLE								

Mount	Standoff Part No.	
LF1	168600-1	**Material:**
LF2	168600-2	**Gray Cast Iron per ASTM A48-83, Class 30**
LF3	168600-3	

LFS1 Series

The LFS1 series is a rugged, low profile type mount which can be focused to decouple a system for better stability and isolation. This series will handle light load ranges for a variety of applications including small engines, pumps, compressors and generators for either stationary or mobile environments. The mount is fail-safe when used with the recommended snubbing washer.

At maximum rated load, the mount exhibits an axial natural frequency of about 9.5 Hz.

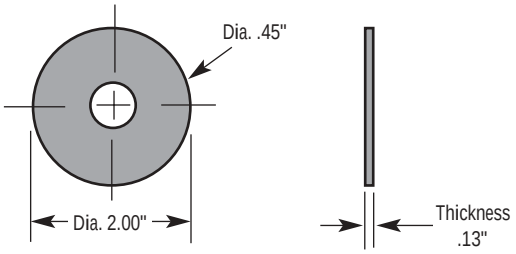
Standard elastomer is neoprene for resistance to oils, ozone, and most solvents.

Part Number	Max. Axial Load (lbs.)	Deflection at Max. Load (in.)
LFS1-75	75	.12
LFS1-100	100	.12
LFS1-175	175	.12
LFS1-300	300	.12

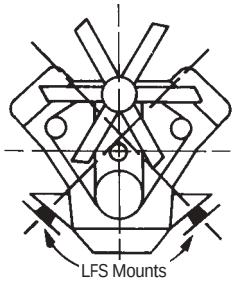
Notes:

1. Structural sections – carbon steel
2. Rust-resistant coating on metal surfaces
3. Axial to radial stiffness ratio approx. 5:1
4. Weight: Approx. .5 lbs.

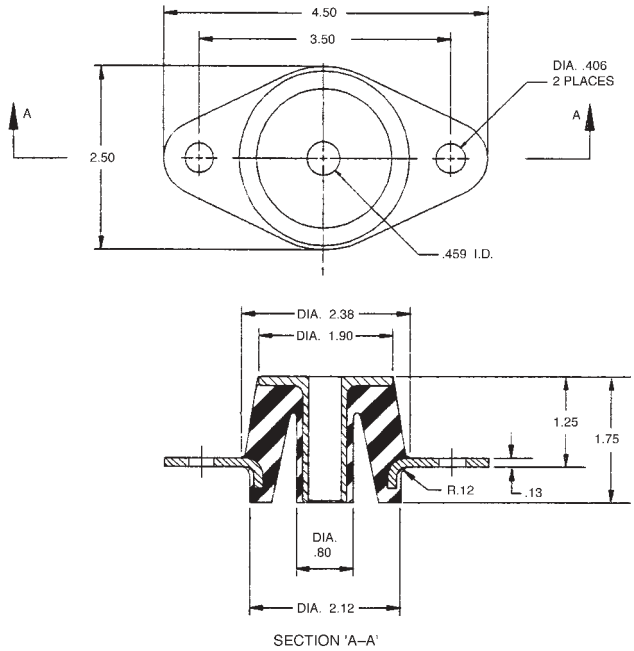
Snubbing Washer P/N 148099-5
(zinc plated carbon steel)

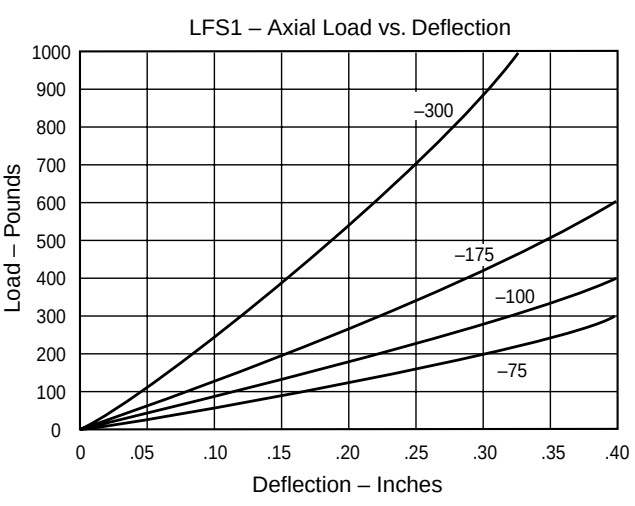


Typical Focused System



Note: Contact Korfund Engineering for Mounting System Analysis and Recommendations





LLF Series Low-Low Frequency Elastomer Vibration Isolation Mounts

Part Number	Axial Load Range (lbs.)	Deflection at Max Load (in.)
LLF-400	250-400	.15
LLF-700	400-700	.15
LLF-1000	700-1000	.15
LLF-1300	1000-1300	.15

Features/Benefits

- Static Load Range 250 –1300 lbs.
- Low Profile
- Rugged Construction
- All bonded construction
- Fail-safe design with built-in snubbing washer
- Axial to radial stiffness – approximately 1:3.5
- Low natural frequency (approx. 8 Hz at max. load)
- Structureborne noise attenuation

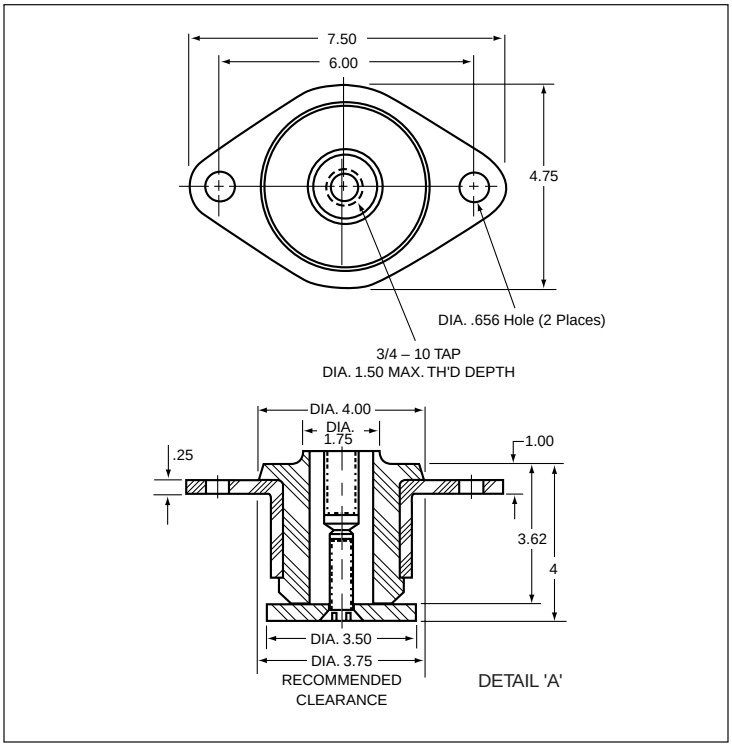
Construction/Material Data

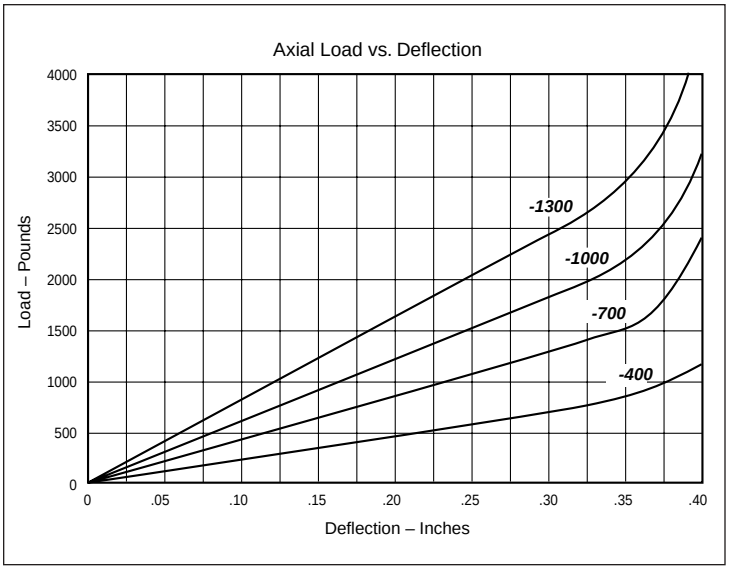
- Structural sections – carbon steel/sintered metal
- Corrosion resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = 0.1 (transmissibility approx. 5:1 at resonance)
- Weight - 6 lbs. (approx.)

Applications

- Highway and off-highway vehicles
  - Isolate engines, cabs and radiators
- Motor generators and compressors
- Pumps and centrifuges
- Portable equipment and machinery
- Marine equipment and power plants
- Fans and blowers

Note: Mount is provided with snubbing washer attached as shown in Detail 'A'





MB Series

Elastomer Shock and Vibration Mounts

Features/Benefits

- Static Load Ranges from 30 to 1300 lbs.
- Axial and Radial Loading
- Structureborne noise attenuation
- Fail-Safe Design
- Natural Frequency 12 to 15Hz at max. rated load
- Built-in leveling device
- Furnished as complete assembly for ease of installation

Construction/Material Data

- Housing - cast aluminum, heat treated
- Hardware - carbon steel, zinc plated
- Elastomer - Neoprene
  - Resists oils, ozone and most solvents
  - Operating Temperature (–20°F to +180°F)
  - Damping Ratio C/C_c = 0.1 (transmissibility approx. 5:1 at resonance)

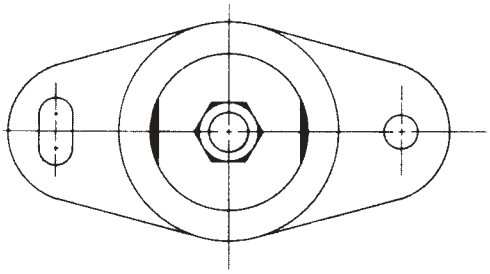
Applications

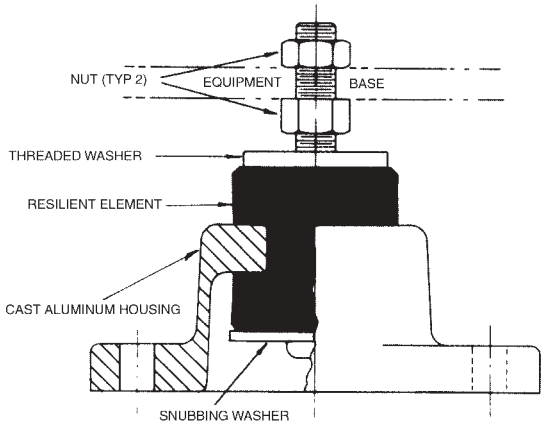
- Marine, Vehicular and Stationary Equipment
  - Engine Generators and Compressors
  - Pumps and Centrifuges
  - Electric Motors and Transformers
  - Roof-top equipment subjected to weathering and severe winds
  - Engine/Drive Trains

MB1

MB3

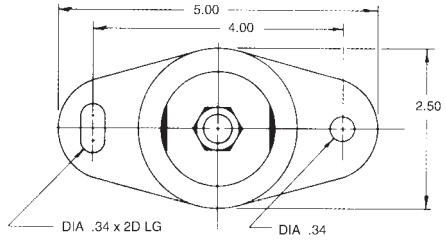
Installation Configuration

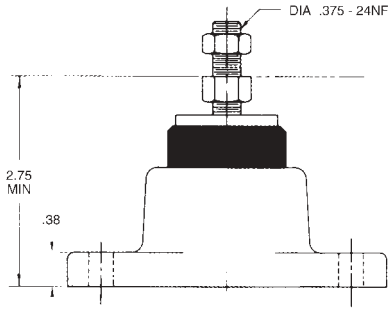


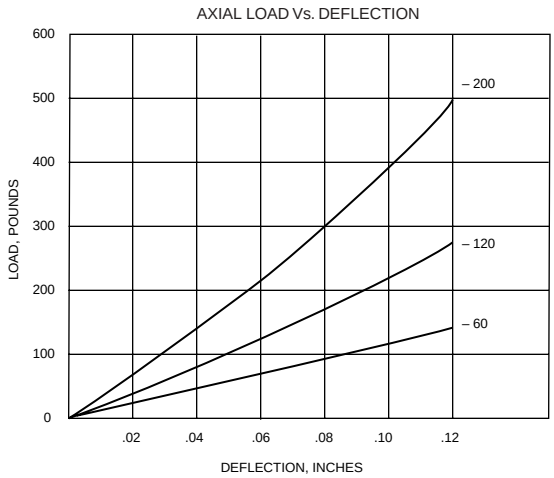


MB1 Series

Part Number	Axial Static Load, Max. (pounds)	Radial Static Load, Max. (pounds)
MB1-60	60	30
MB1-120	120	40
MB1-200	200	50





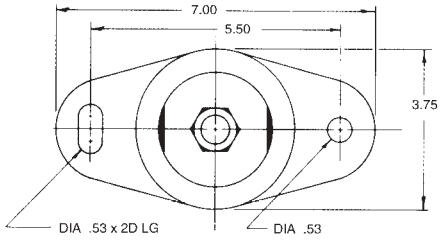


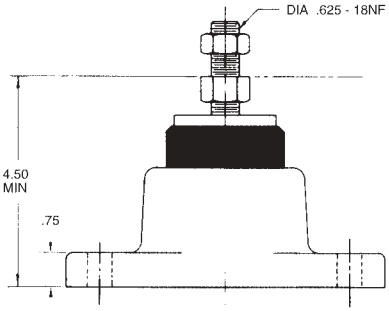
Load Vs. Natural Frequency

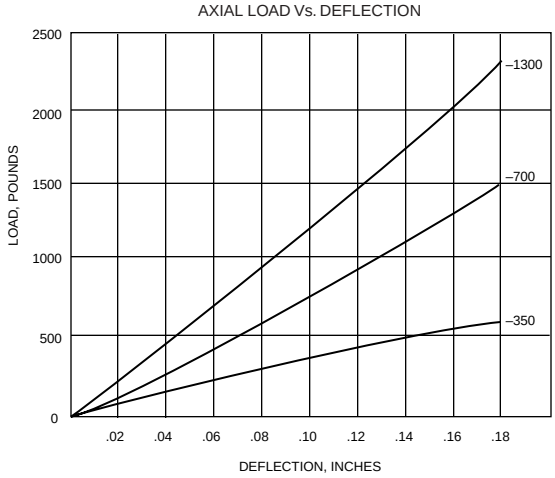
Part Number	Axial Static Load, Max. (pounds)	Approximate Natural Freq. (Hz) (at Max. Load)
MB1-60	60	15
MB1-120	120	15
MB1-200	200	15

MB3 Series

Part Number	Axial Static Load, Max. (pounds)	Radial Static Load, Max. (pounds)
MB3-350	350	140
MB3-700	700	300
MB3-1300	1300	650







Load Vs. Natural Frequency

Part Number	Axial Static Load, Max. (pounds)	Approximate Natural Freq. (Hz) (at Max. Load)
MB3-350	350	12
MB3-700	700	12
MB3-1300	1300	12

RSM Series Elastomer Shock and Vibration Mounts

RSM1 & 3 Series

The RSM1 & 3 series mounts are fully bonded, fail-safe, neoprene elastomer mounts designed to provide shock and vibration isolation for a variety of applications in the light to medium load range. The mount can be provided in a ductile iron outer housing for seismic or heavy duty applications, or with an aluminum cast housing for applications where weight is a critical consideration.

Features/Benefits

- Static Load Ranges from 250 to 1300 lbs.
- Axial and Radial Loading
- Structureborne noise attenuation
- Fail-Safe Design
- Natural Frequency 8Hz at max. rated load
- Furnished as complete assembly for ease of installation

Construction/Material Data

- Housing - cast aluminum, heat treated. Also available in a ductile iron housing for seismic or heavy duty applications
- Hardware - carbon steel, zinc plated
- Elastomer - Neoprene
  - Resists oils, ozone and most solvents
  - Operating Temperature (–20°F to +180°F)
  - Damping Ratio C/C_C = 0.1 (transmissibility approx. 5:1 at resonance)

Applications

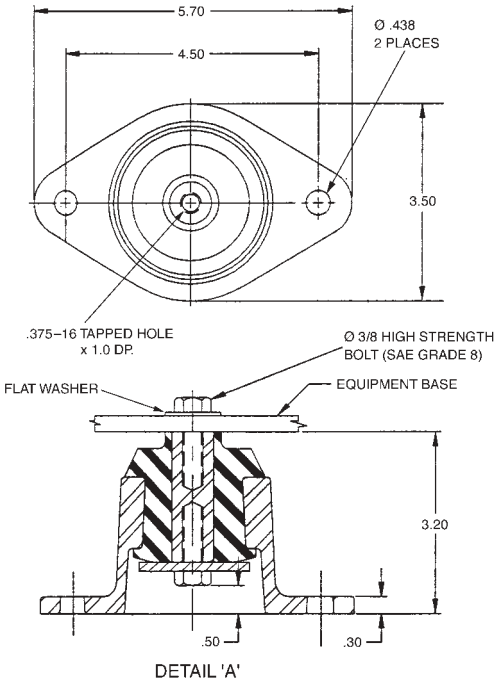
- Marine, Vehicular and Stationary Equipment
  - Engine Generators and Compressors
  - Pumps and Centrifuges
  - Electric Motors and Transformers
  - Roof-top equipment subjected to seismic and severe wind loads
  - Engine/Drive Trains
  - Marine propulsion equipment

Notes:

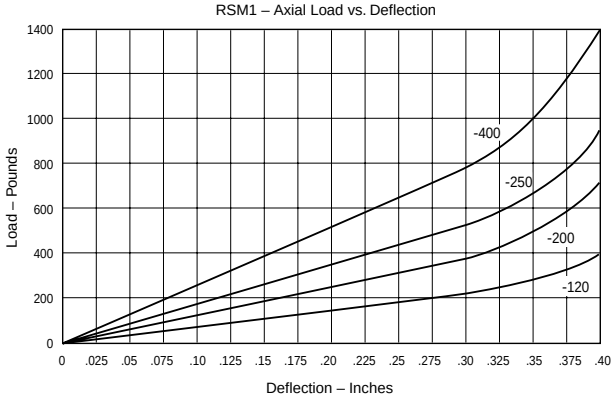
1. For aluminum housing order RSMA1 or RSMA3
2. Finish: Black paint
3. Weight: RSM1 — 2.9 lbs., RSM3 — 14.8 lbs.
   RSMA1 — 1.7 lbs., RSMA3 — 8.1 lbs.
4. Stiffness Ratio: Axial / Radial = 1 / 3.5 (approx.)
5. Mount supplied with hardware shown in DETAIL 'A'

RSM1 Series

Part Number	Load Range (pounds)	Deflection at Max. Load (in.)
RSM1-120	60-120	.15
RSM1-200	100-200	.15
RSM1-250	125-250	.15
RSM1-400	200-400	.15

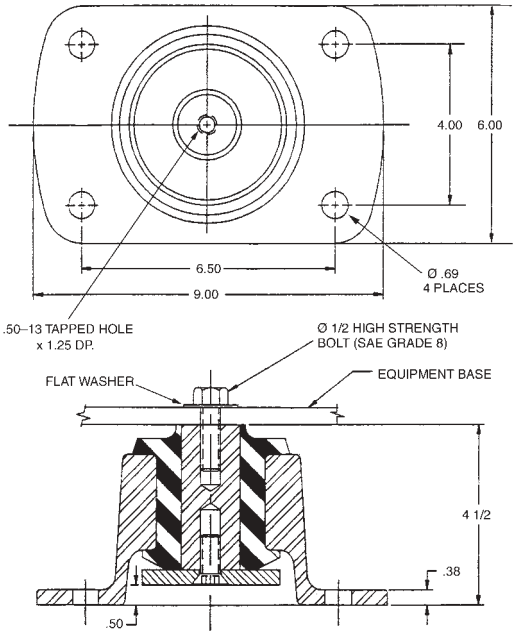


DETAIL 'A'

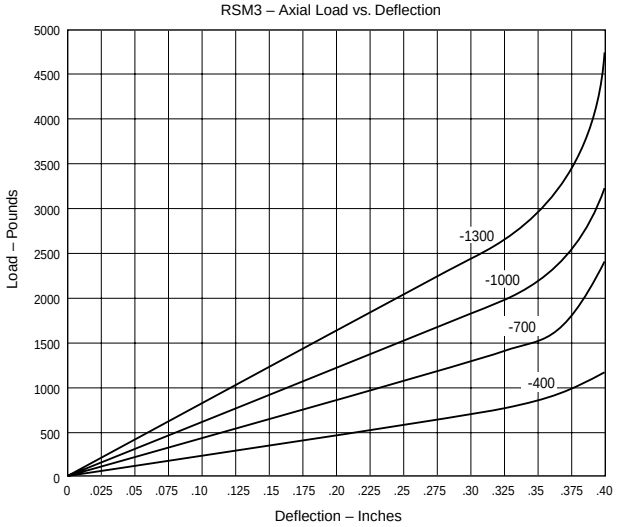


RSM3 Series

Part Number	Load Range (pounds)	Deflection at Max. Load (in.)
RSM3-400	250-400	.15
RSM3-700	400-700	.15
RSM3-1000	700-1000	.15
RSM3-1300	1000-1300	.15



DETAIL 'A'



LR Series
Low Frequency, Focused, Elastomer Shock & Vibration Isolation Mounts

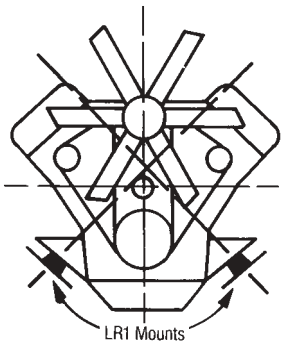
Features/Benefits
- Static Load Range 20 to 400 lbs.
- Low Profile
- Fail-safe design with snubbing washer
- Axial to radial stiffness – approximately 6:1
- Can be focused to decouple system

Construction/Material Data
- Structural sections – carbon steel
- Rust-resistant coating on metal surfaces
- Neoprene Elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = .10 (transmissibility approx. 5:1 at resonance)

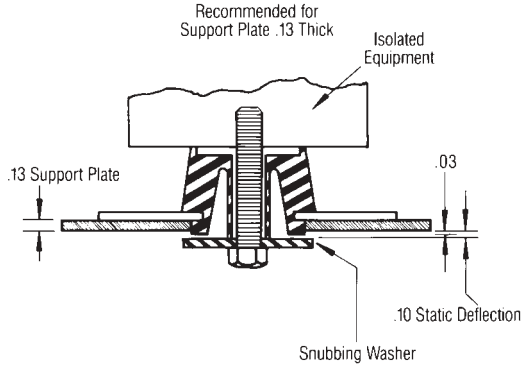
Applications
- Small/medium diesel or gas engines
- Motor generators and compressors
- Pumps and centrifuges
- Fans and blowers
- Portable equipment and machinery

LR1
LR2

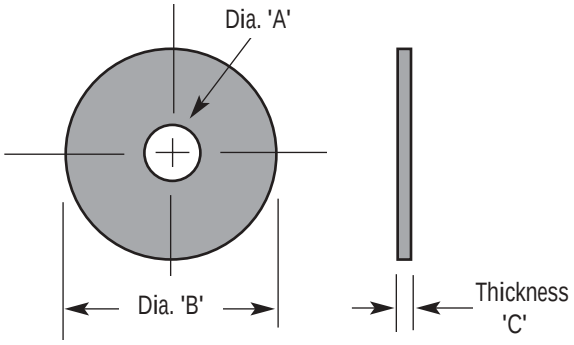
Typical Focused System



Note: Contact Korfund Engineering for Mounting System Analysis and Recommendations.



Typical Installation Configuration



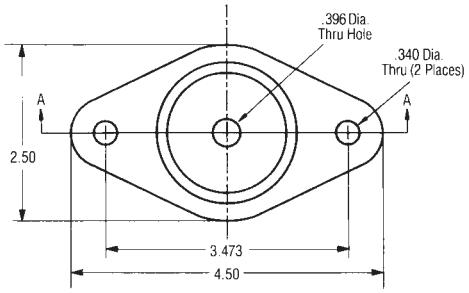
LR Series Snubbing Washers* Dimensions

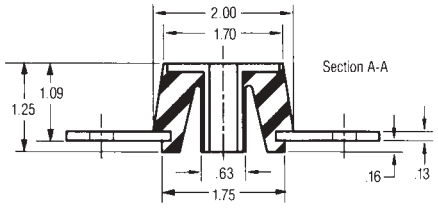
	Dia. 'A'	Dia. 'B'	Thickness 'C'	Part No.
LR1	.45	2.00	.13	148099-5
LR2	.64	2.25	.15	148099-6

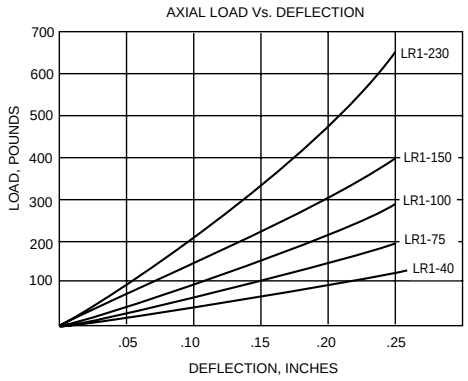
* Zinc Plated Carbon Steel

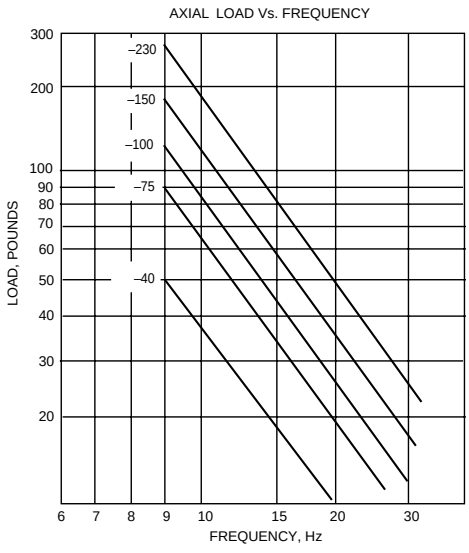
LR1 Series

Part Number	Static Load Nominal lbs.
LR1-40	40
LR1-75	75
LR1-100	100
LR1-150	150
LR1-230	230



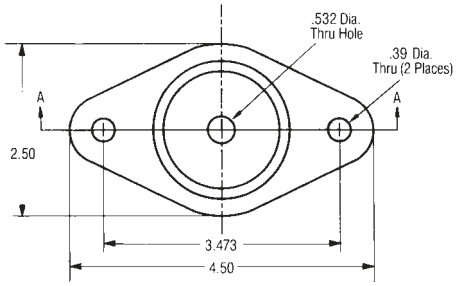


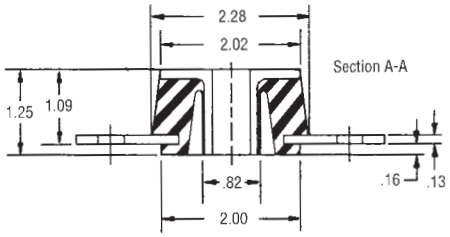


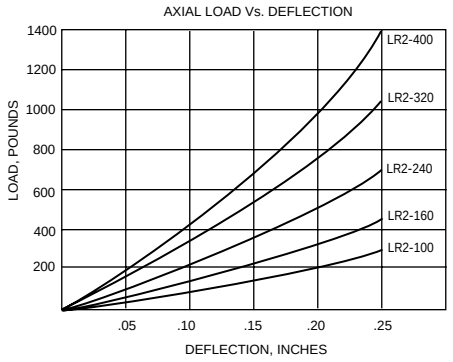


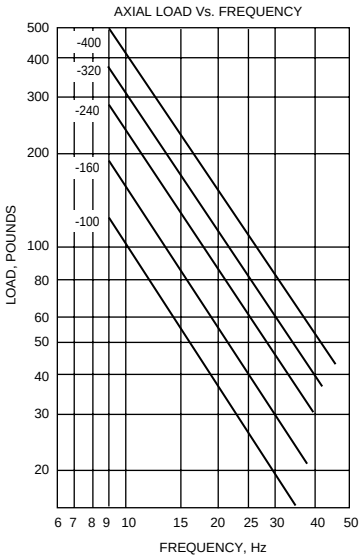
LR2 Series

Part Number	Static Load Nominal lbs.
LR2-100	100
LR2-160	160
LR2-240	240
LR2-320	320
LR2-400	400









BM Series

Low Frequency Elastomer Shock & Vibration Isolation Mounts

Features/Benefits

- Static Load Range 30 – 260 lbs.
- Normally Recommended for vertically applied loads
- Low natural frequency (approx. 8 Hz at max. rated load)
- Provides high deflection shock isolation
- Structureborne noise attenuation

Construction/Material Data

- Structural sections - carbon steel
- Rust resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = .01 (transmissibility approx. 5:1 at resonance)

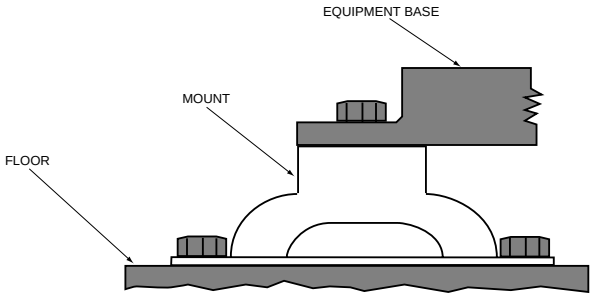
Applications

- Motor Generators and Compressors
- Electric Motors
- HVAC Equipment
- Mobile Equipment and Machinery
- Centrifuges and Pumps
- In-Plant Machinery

BM1

BM2

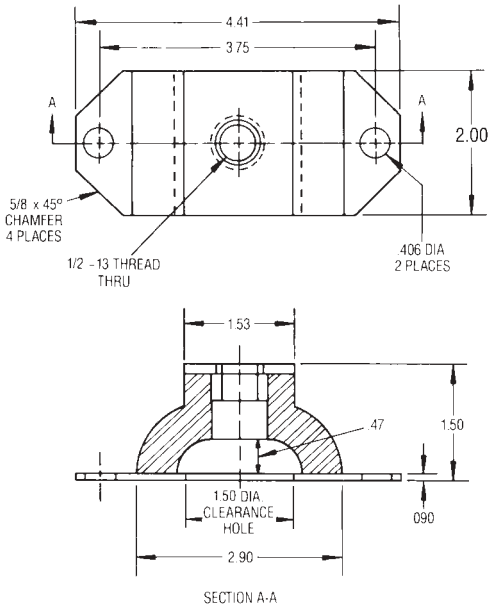
Typical Installation



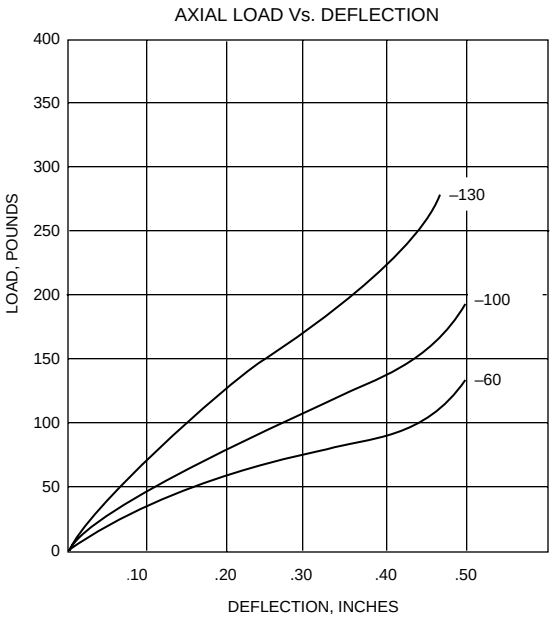
CAUTION: Mount is not inherently "fail safe", and therefore should not be used in mobile applications without some external means of restraint.

BM1

Part No.	Axial Static Load Range (pounds)
BM1-60	30 – 60
BM1-100	50 – 100
BM1-130	65 – 130



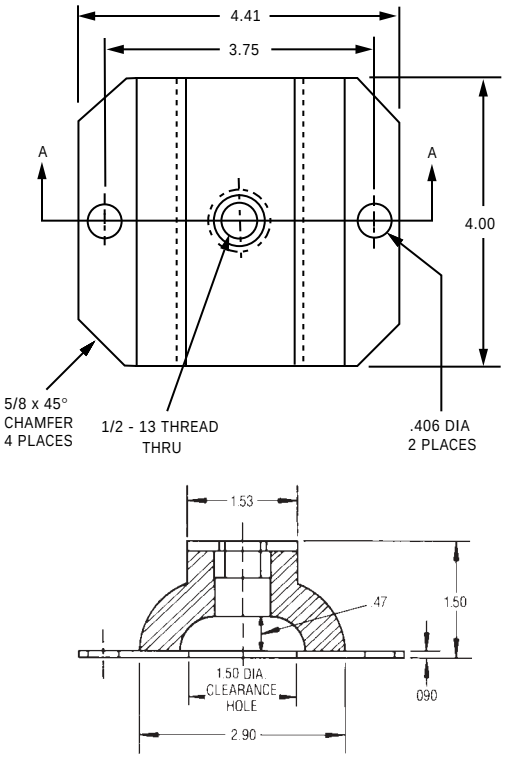
WEIGHT - .47 lbs.



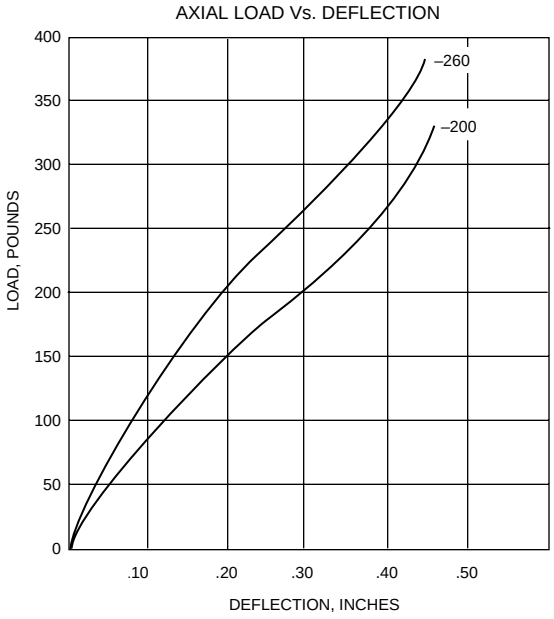
(Axial to Radial Stiffness Ratio Approx. 2:1)

BM2

Part No.	Axial Static Load Range (pounds)
BM2-200	100 – 200
BM2-260	130 – 260



WEIGHT - 1.00 lbs.



(Axial to Radial Stiffness Ratio Approx. 2:1)

BMX2 Series
High Load Elastomer Shock & Vibration Isolation Mounts

Part Number	Axial Static Load Range (pounds)
BMX2-1	175 – 350
BMX2-2	250 – 500
BMX2-3	350 – 700

BMX2

Features/Benefits

- Static Load Range 250 – 700 lbs.
- Normally Recommended for vertically applied loads
- Low natural frequency (approx. 8 Hz at max. rated load)
- Provides good shock isolation
- Structureborne noise attenuation

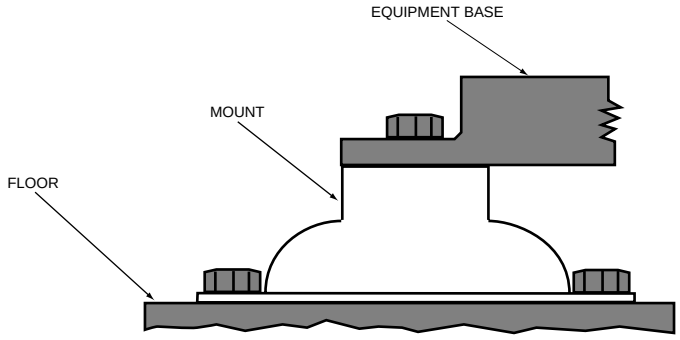
Construction/Material Data

- Structural sections - carbon steel
- Rust resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = .1 (transmissibility approx. 5:1 at resonance)

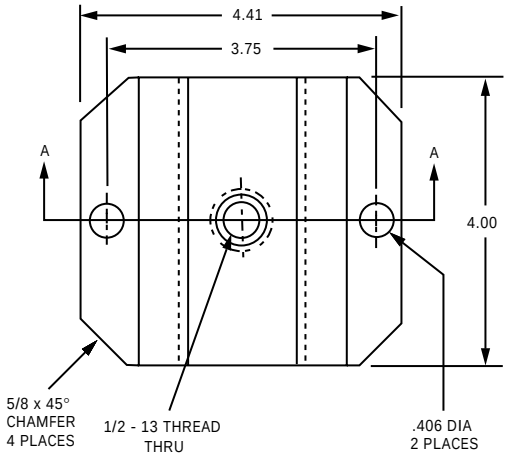
Applications

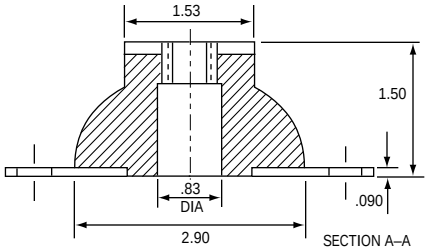
- Motor Generators and Compressors
- Electric Motors
- HVAC Equipment
- Centrifuges and Pumps
- In-Plant Machinery

Typical Installation

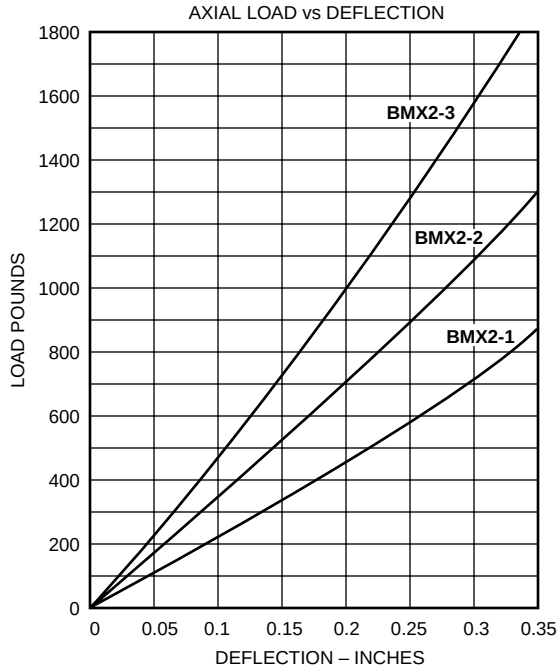


CAUTION: Mount is not inherently "fail safe", and therefore should not be used in mobile applications without some external means of restraint.





WEIGHT 1.20 lbs.



RB Series

Ring and Bushing, Elastomer Shock and Vibration Mounts

Features/Benefits

- Static Load Ranges from 30 – 4600 lbs.
- Full rebound protection
- Bonded center tube
- Axial and radial loadings
- Fail-safe design with snubbing washers
- Natural frequency 10 – 15 Hz at max. rated load
- Structureborne noise attenuation

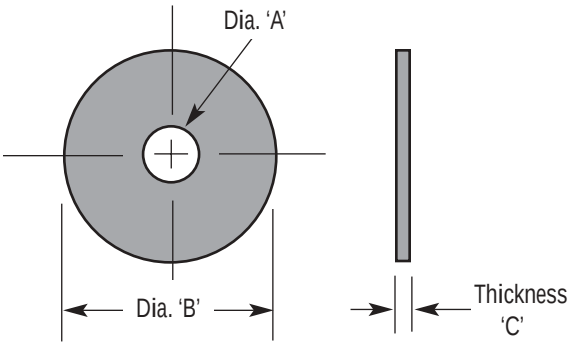
Construction/Material Data

- Structural sections – carbon steel
- Rust-resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = 0.1 (transmissibility approx. 5:1 at resonance)

Applications

- Highway and off-highway vehicles
  - Isolate engines, cabs, radiators, battery boxes, fuel tanks and accessories
- Motor generators and compressors
- Pumps and centrifuges
- Marine equipment and power plants
- HVAC equipment
- Portable equipment and machinery
- Office equipment/computers

RB Series (Five Sizes)



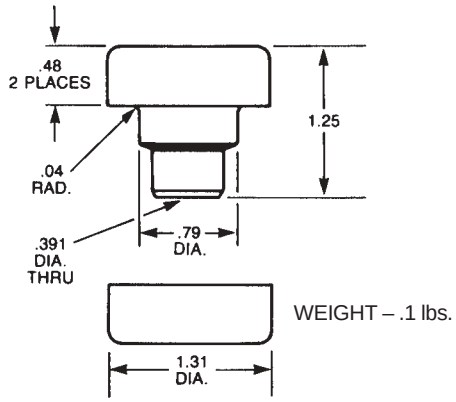
RB Series Snubbing Washers* Dimensions (in.)

	Dia. 'A'	Dia. 'B'	Thickness 'C'	Part No.
RB1 Series	.40	1.56	.09	148099-1
RB2 Series	.51	2.00	.13	148099-18
RB3 Series	.66	2.81	.19	148099-3
RB4 Series	.94	3.88	.25	148099-4
RB5 Series	1.06	5.25	.38	148099-2

*Zinc Plated Carbon Steel

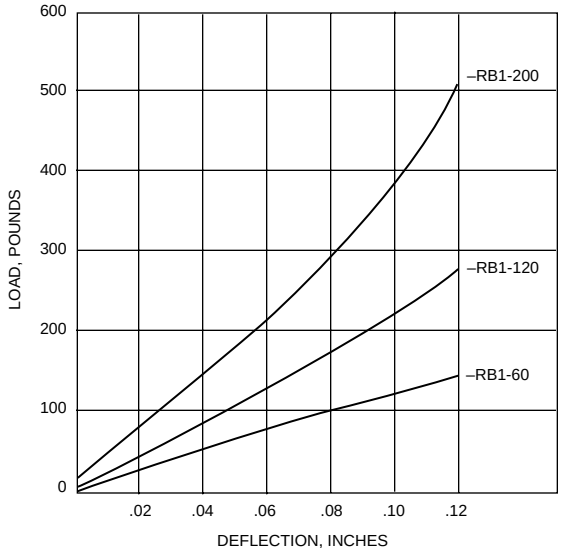
RB1 Series

Part Number	Axial Static Load, Max. (Pounds)	Radial Static Load, Max. (Pounds)
RB1-60	60	30
RB1-120	120	40
RB1-200	200	50



WEIGHT – .1 lbs.

AXIAL LOAD Vs. DEFLECTION

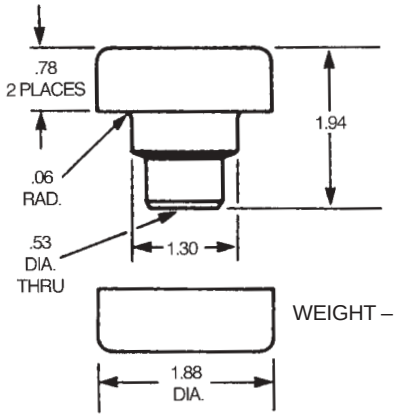


LOAD Vs. NATURAL FREQUENCY

Part Number	Mounting Plate Thickness (Inches)	Approximate Natural Frequency (at Max. Load)
RB1-60	.38	15 Hz
RB1-120	.38	15 Hz
RB1-200	.38	15 Hz

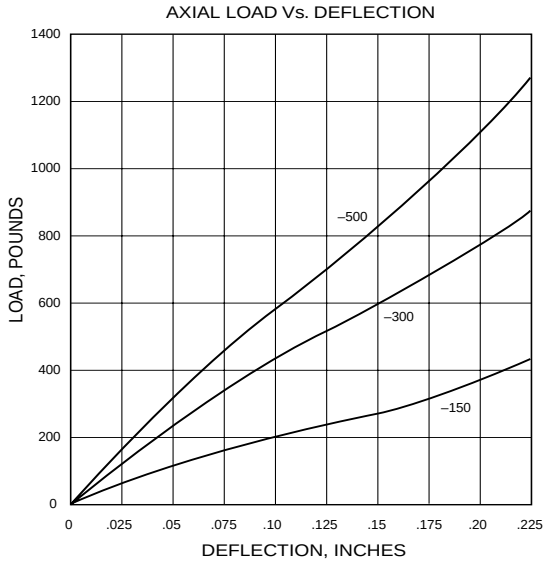
RB2 Series

Part Number	Axial Static Load, Max. (Pounds)	Radial Static Load, Max. (Pounds)
RB2-150	150	60
RB2-300	300	120
RB2-500	500	200



WEIGHT – .35 lbs.

AXIAL LOAD Vs. DEFLECTION

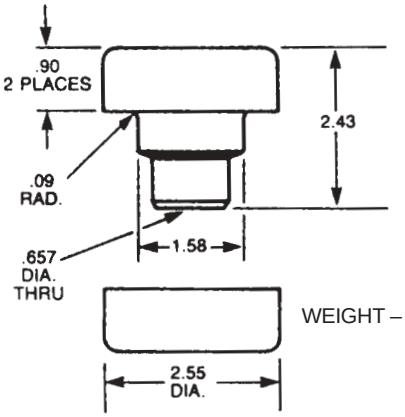


LOAD Vs. NATURAL FREQUENCY

Part Number	Mounting Plate Thickness (Inches)	Approximate Natural Frequency (at Max. Load)
RB2-150	.56	12 Hz
RB2-300	.56	12 Hz
RB2-500	.56	12 Hz

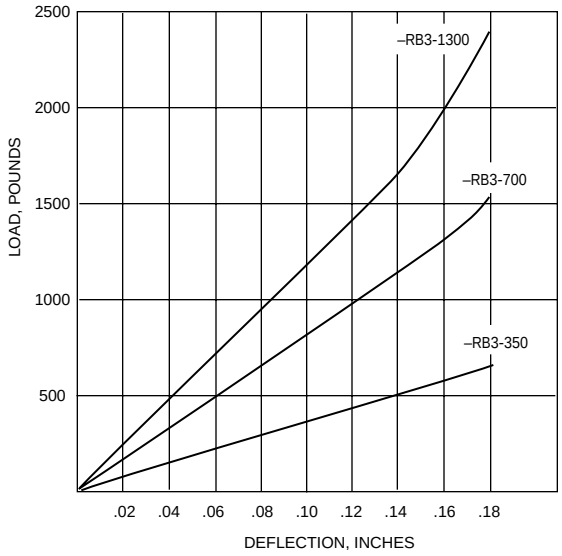
RB3 Series

Part Number	Axial Static Load, Max. (Pounds)	Radial Static Load, Max. (Pounds)
RB3-350	350	140
RB3-700	700	300
RB3-1300	1300	650



WEIGHT – .7 lbs.

AXIAL LOAD Vs. DEFLECTION

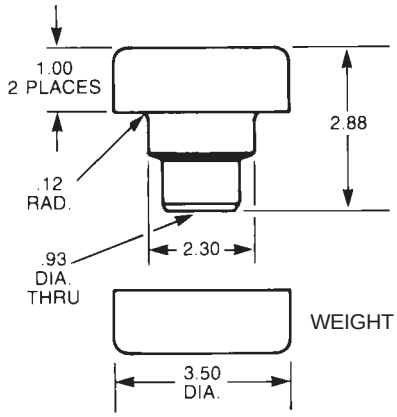


LOAD Vs. NATURAL FREQUENCY

Part Number	Mounting Plate Thickness (Inches)	Approximate Natural Frequency (at Max. Load)
RB3-350	.88	12 Hz
RB3-700	.88	12 Hz
RB3-1300	.88	12 Hz

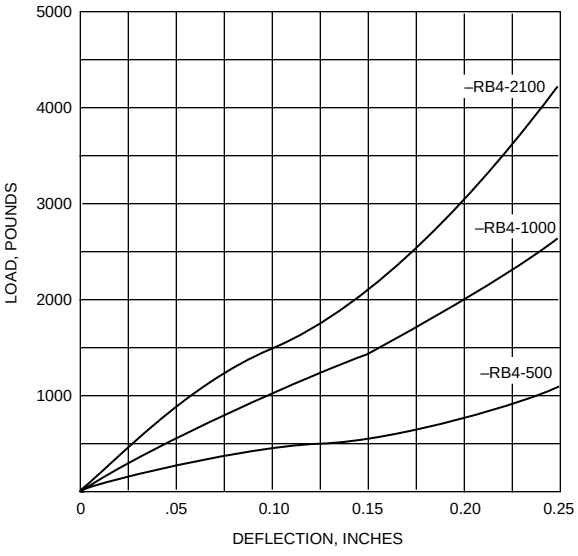
RB4 Series

Part Number	Axial Static Load, Max. (Pounds)	Radial Static Load, Max. (Pounds)
RB4-500	500	200
RB4-1000	1000	400
RB4-2100	2100	900



WEIGHT – 1.4 lbs.

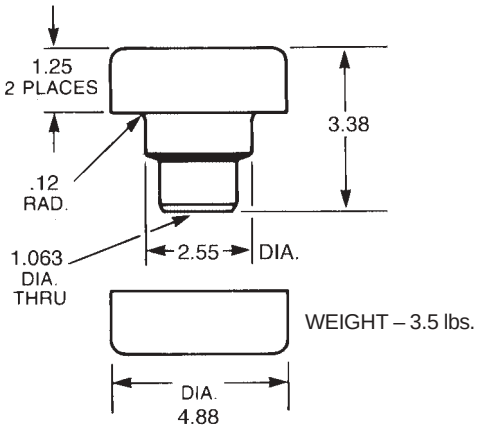
AXIAL LOAD Vs. DEFLECTION



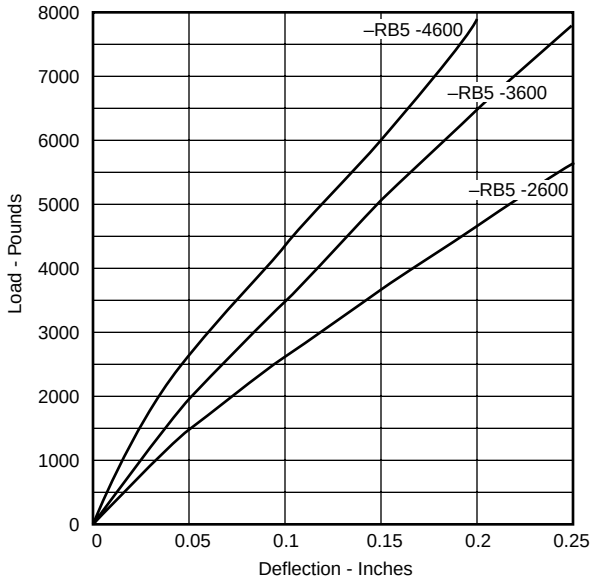
LOAD Vs. NATURAL FREQUENCY

Part Number	Mounting Plate Thickness (Inches)	Approximate Natural Frequency (at Max. Load)
RB4-500	1.12	10 Hz
RB4-1000	1.12	10 Hz
RB4-2100	1.12	10 Hz

Part Number	Axial Static Load, Max. (Pounds)	Radial Static Load, Max. (Pounds)
RB5-2600	2600	1000
RB5-3600	3600	1450
RB5-4600	4600	1900



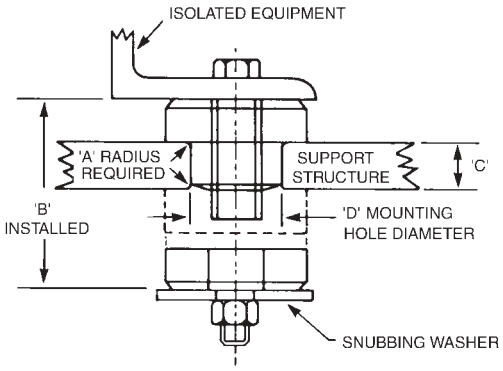
Axial Load Vs. Deflection (1.25" thick mounting plate)

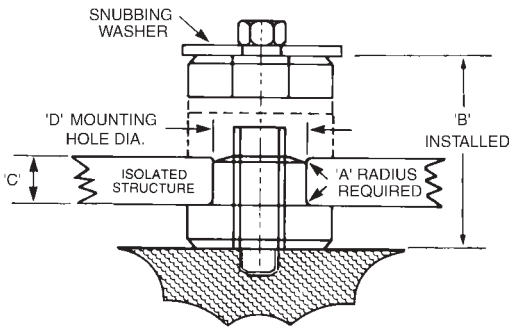


LOAD Vs. NATURAL FREQUENCY

Part Number	Mounting Plate Thickness (Inches)	Approximate Natural Frequency (at Max. Load)
RB5-2600	1.25	10 Hz
RB5-3600	1.25	10 Hz
RB5-4600	1.25	10 Hz

Installation Configurations





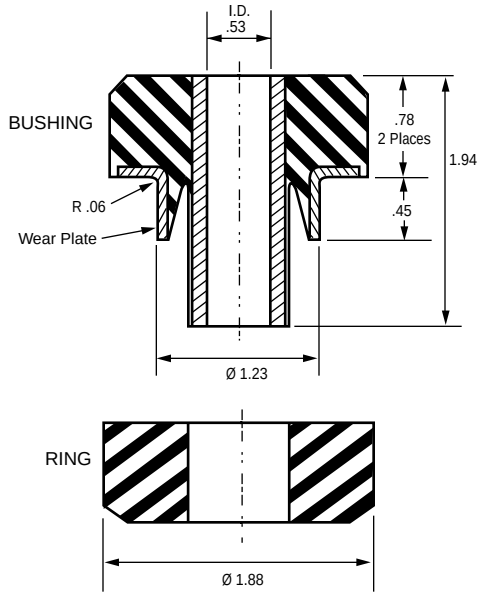
Installation Dimensions (inches)

Mount	A	B	C	D
RB1	.04	1.25	.38	.75
RB2	.06	1.94	.56	1.25
RB3	.09	2.43	.88	1.50
RB4	.12	2.88	1.12	2.25
RB5	.12	3.38	1.25	2.50

RBX2 Series

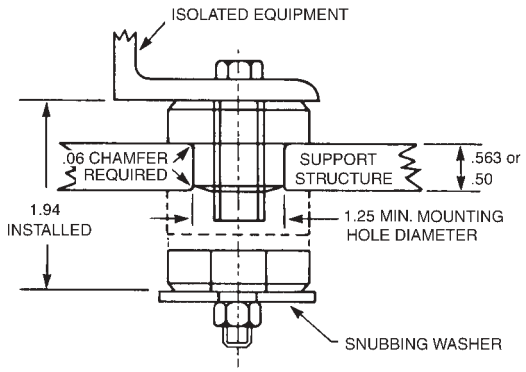
The RBX2 series is a rugged, ring and bushing type mount designed for light load ranges. The integral bonded wear plate provides improved fatigue life and wear resistance for applications where severe shock and vibration conditions exist. Installation is also simplified with this wear plate design due to the fact that a smooth, close tolerance attachment hole is not required. Applications include small engines, pumps, generators, radiators, and operator cabs in severe environments. The mount is fail-safe when used with the recommended snubbing washer. At maximum rated load, the mount exhibits a natural frequency of about 12 Hz when installed in a .56 thick mounting plate. Standard elastomer is neoprene for resistance to oils, ozone, and most solvents.

	Max. Load (lbs.)			
Part No.	Thick Mtg. Plate (0.563) Axial	Radial	Thin Mtg. Plate (0.50) Axial	Radial
RBX2-150	150	75	80	40
RBX2-260	260	130	160	80
RBX2-500	500	250	300	150



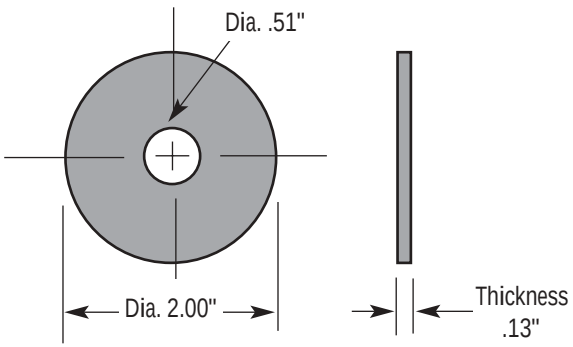
WEIGHT .32 lbs.

Typical Installation Configuration

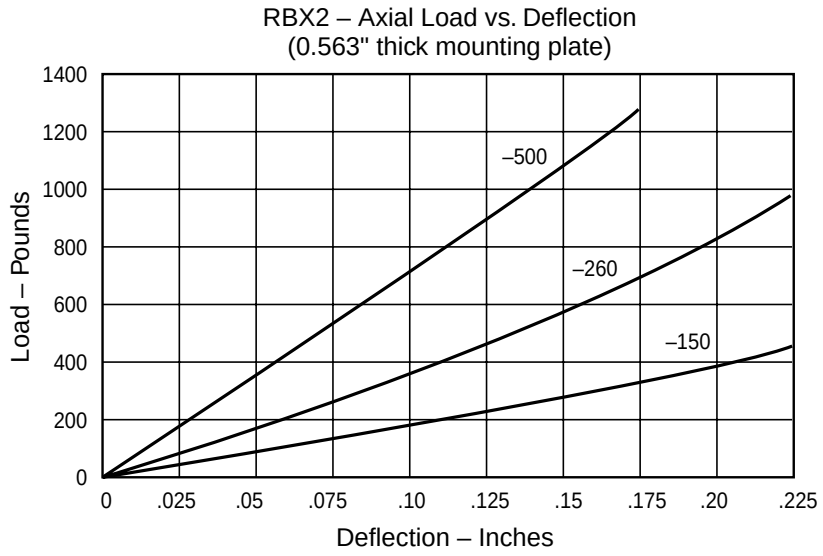


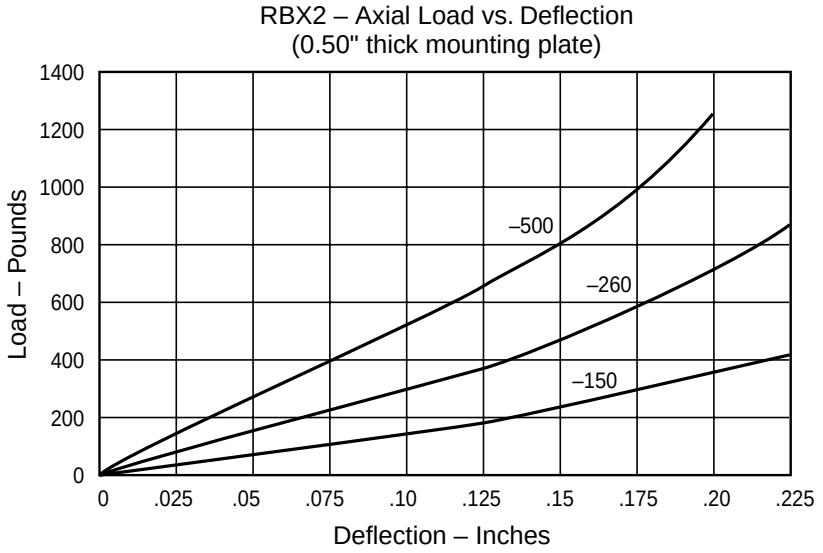
Note: Install so bushing supports static load.

Snubbing Washer P/N 148099-18 (zinc plated carbon steel)



RBX2 Series – Axial Load vs. Deflection





SB3 Series Built-In Snubbing Elastomer Vibration Isolation Mounts

Part No.	Axial Static Load Range (Pounds)
SB3-250	125 – 250
SB3-425	250 – 425
SB3-600	425 – 600
SB3-750	600 – 750

Features/Benefits

- Static Load Range 125 – 750 lbs.
- Full rebound shock protection
- Bonded center tube and wear plates
- Fail-safe design with snubbing washers
- Natural frequency approx. 12 Hz at max. rated load
- Built-in snubbing in all directions
- No metal-to-metal contact
- No chamfer or radius required on installation hole

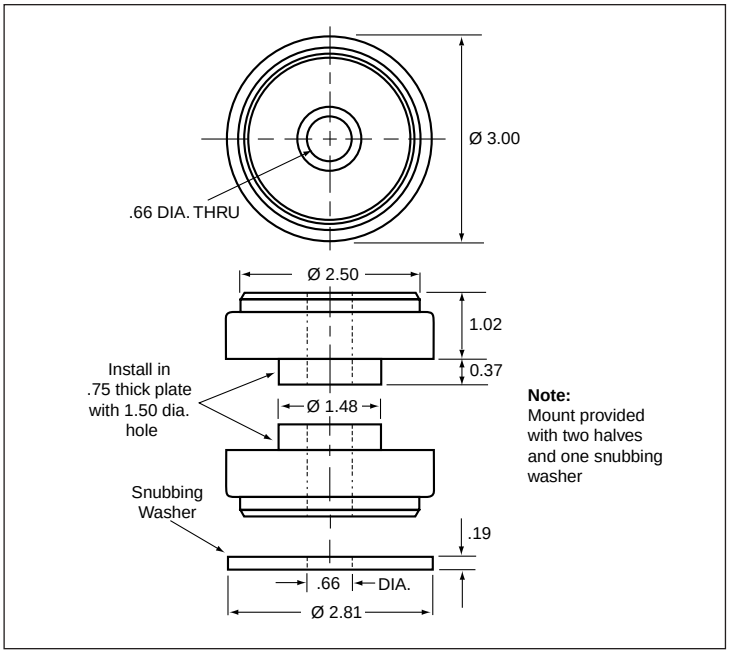
Construction/Material Data

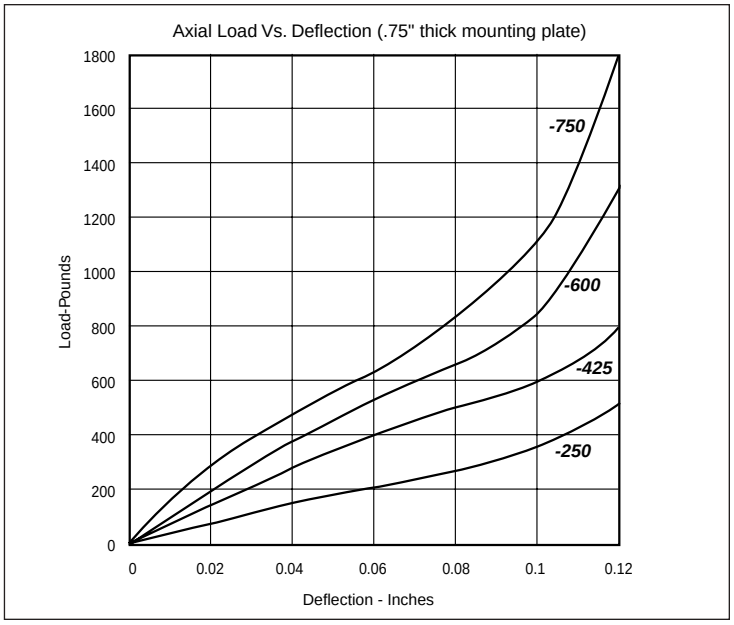
- Structural sections - carbon steel
- Rust resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (-20°F to +180°F)
  - Damping Ratio C/C_C = .1 (transmissibility approx. 5:1 at resonance)
- Snubbing washer zinc plated carbon steel
- Weight - 1.1 lbs. (approx.)

Applications

- Highway and off-highway vehicles
  - Isolate engines, cabs, radiators, battery boxes, fuel tanks and accessories
- Motor Generators and Compressors
- Pumps and Centrifuges
- Marine equipment
- Portable equipment and machinery

Note: Install in .75 thick plate with 1.50 dia. hole





CM Series Elastomeric Shock & Vibration Mounts for Mobile Applications

Elastomeric cup mounts provide superior shock and vibration isolation for a variety of applications, environments, and mounting configurations.

Features/Benefits

- Load Range from 5 – 110 lbs.
- Low profile, fail-safe design
- Rugged lightweight construction
- All attitude mounting
- Structureborne noise isolation
- Nominal 30 Hz natural frequency
- Available in Steel or Aluminum housing
- Neoprene or Silicone elastomer element

Construction/Material Data

- Structural sections, cold rolled steel, zinc plated, or aluminum with chemical coat per MIL-C-5541
- Neoprene elastomer:
  - Resists oils, ozone and most solvents
  - Good heat aging resistance
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_C = .10
- Silicone elastomer:
  - Resists oils, ozone and most solvents
  - Excellent heat aging resistance
  - Operating temperature range (–80°F to +300°F)
  - Damping ratio C/C_C = .15

Applications

- Airborne avionics
- Shipboard and vehicular electronics
- Motor generator sets
- Pumps and compressors
- Camera systems
- Fans and blowers
- Control panels

CM1

CM2

Cup Mount Selection Guide - Part Numbering Code (Typical P/N Code: CM1–14 BST)

	Isolator Size (CM1, CM2)	Maximum Load	Cup Material: A - Alum. B - Steel	Elastomer: S - Silicone N - Neoprene*	Center Hole: T - Tapped H - Thru Hole
CM1					
14					
B					
S					
T					

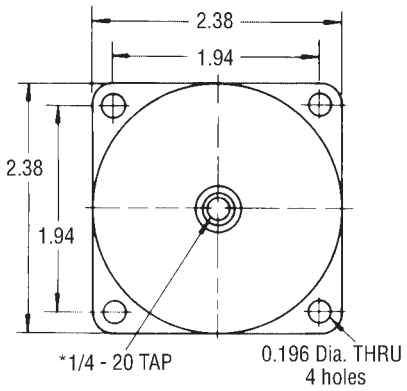
**Neoprene Elastomer available where temperature and damping are not critical.*

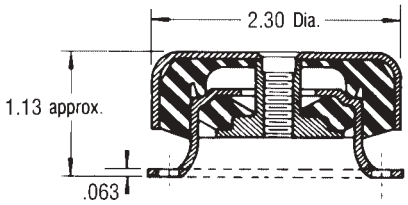
CM1 Series

Part Number	Max. Mobile Load (Pounds)	Max. Stationary Load (Pounds)
CM1-5*	5	8
CM1-14	14	20
CM1-24	24	30
CM1-38	38	70
CM1-60	60	100

*Available in silicone only

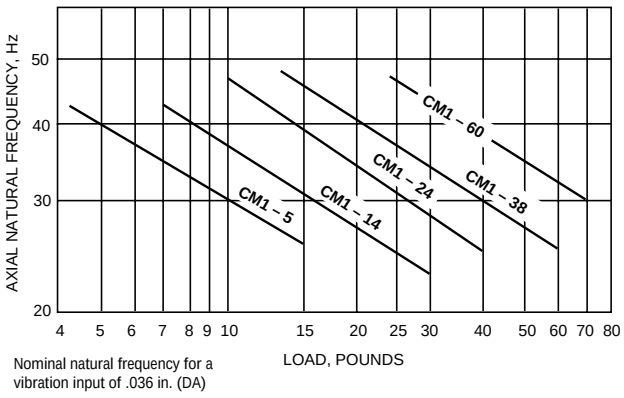
Weight: 5½ oz. (Steel)
3½ oz. (Alum.)





*Available with .264/.271 free hole

AXIAL LOAD Vs. FREQUENCY

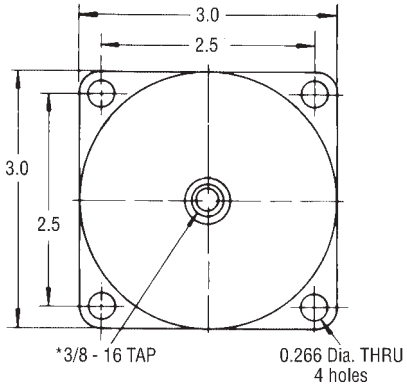


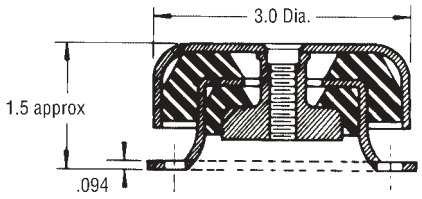
Nominal natural frequency for a vibration input of .036 in. (DA)

CM2 Series

Part Number	Max. Mobile Load (Pounds)	Max. Stationary Load (Pounds)
CM2-30	30	50
CM2-50	50	100
CM2-80	80	150
CM2-110	110	250

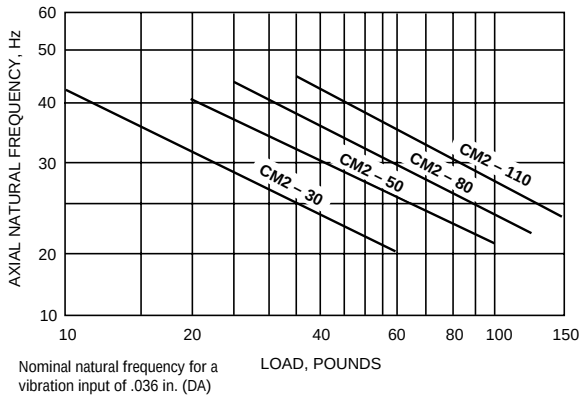
Weight: 14 oz. (Steel)
8½ oz. (Alum.)





*Available with .405/.412 free hole

AXIAL LOAD Vs. FREQUENCY



Nominal natural frequency for a vibration input of .036 in. (DA)

VLM Series Leveling Mounts

Features/Benefits

- Load Range from 50 – 12,000 lbs.
- Effective Shock and Vibration control
- Available in 4 sizes
- Built-in leveling
- Anchor bolts not required
- Quickly and easily installed
- Natural Frequency approx. 10 Hz at rated load

Construction/Material Data

- Structural sections – painted steel housing with electro-plated hardware.
- Neoprene elastomer
  - Resists oil, ozone and most solvents

Applications

- Grinders, Jig Bores, Lathes
- Milling Machines
- Punch Presses, Shears, Brakes
- Processing Equipment
- Printing Presses
- Diesel Generators

Typical Installation

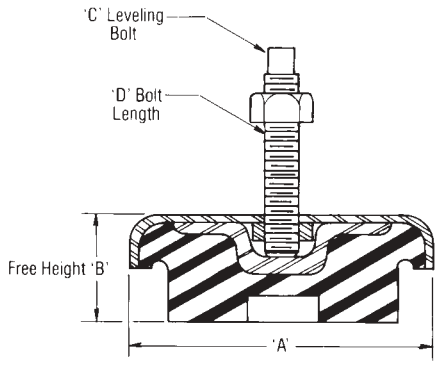
VLM3

VLM5

VLM6

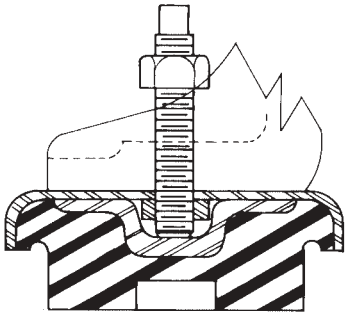
VLM8

Part Number	Axial Static Load Max. (Pounds)
VLM-3	1000
VLM-5	1500
VLM-6	4000
VLM-8	12000

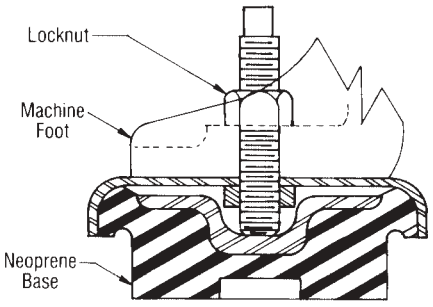


Dimensions	A	B	C	D
VLM-3	3½"	1⅛"	½"–13	3½"
VLM-5	5"	1¾"	½"–13	5"
VLM-6	6¼"	1¾"	¾"–10	5"
VLM-8	8"	2"	1"–14	8"

Installation Configuration



MOUNT BEFORE LEVELING



MOUNT AFTER LEVELING

INSTALLATION INSTRUCTIONS

1. Select proper mount for load required.
2. Remove leveling bolt from mount.
3. Center mount under hole in equipment leg or base.
4. Replace leveling bolt and turn clockwise to level equipment as required.
5. Tighten lock-nut securely.

R/RD Series Flush Type Neoprene Mountings

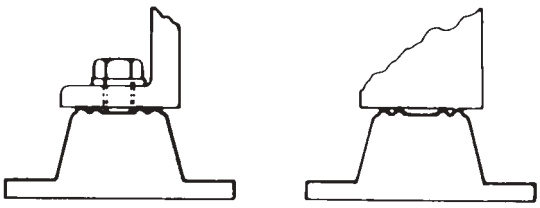
Features/Benefits

- Static Load Ranges from 10–4,000 lbs.
- Deflections to ¼" with Type R, to ½" with Type RD
- Available in 4 sizes
- Corrosion resistant
- Molded in colored oil-resistant neoprene
- 5 colors for error free identification
- Non-skid ribbed neoprene on base plate

Applications

- Air Handling Units
- Business Machines
- Compressors, Pumps and Fans
- Instrument Panels
- Machine tools
- Motor Generators
- Transformers

Mounting Configurations



Type R or RD
IF BOLTING IS PREFERRED

Type R or RD mountings are furnished with a tapped hole in the center. This enables the equipment to be bolted securely to the mounting.

Type R or RD
NO BOLTING REQUIRED

Type R or RD mountings may be used without bolting under machines having no lateral or severe vertical motion.

Non-Skid Base
The R/RD Series base plates are covered in non-skid ribbed neoprene

R

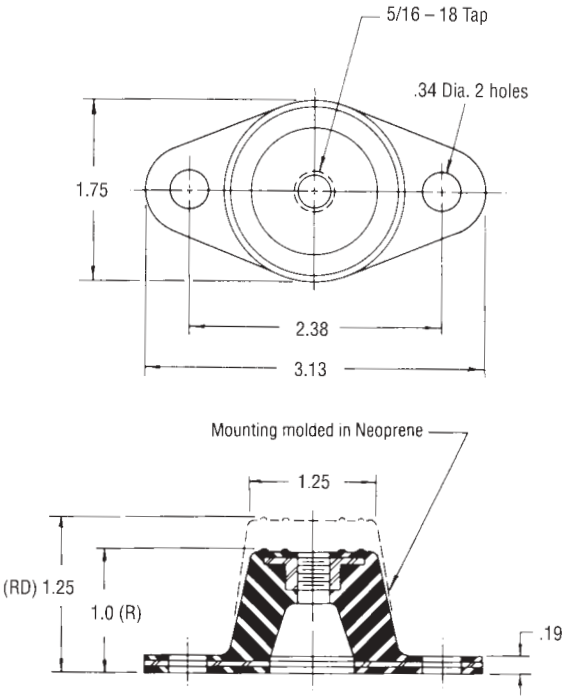
R4

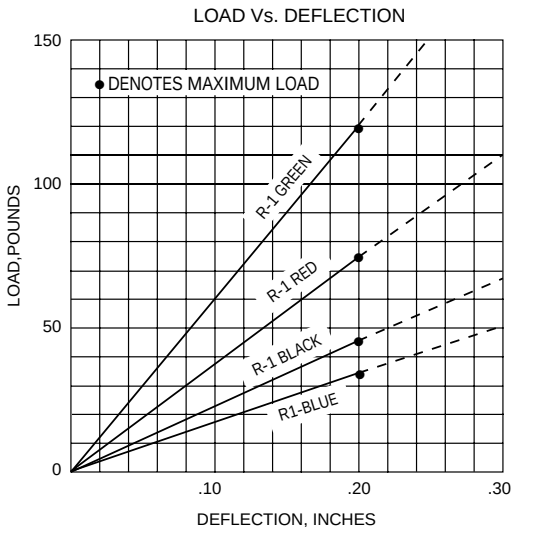
RD

NOTE: Mounts are not inherently fail safe. For stationary, vertical loading only.

R1/RD1 Series

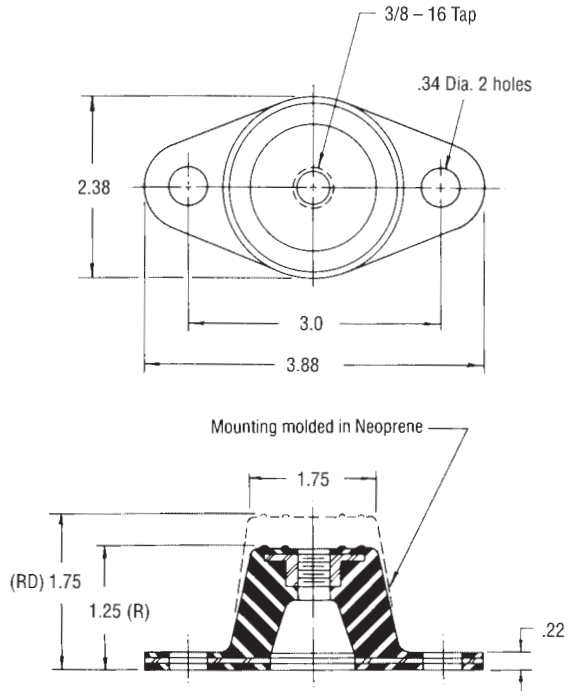
Type	Color Code	Max.Load, lbs.	Deflection, in.	
			R	RD
R1/RD1	Blue	35	0.20	0.40
	Black	45		
	Red	70		
	Green	120		

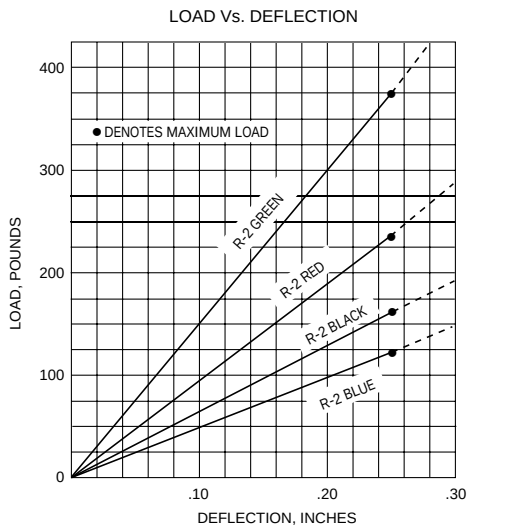




R2/RD2 Series

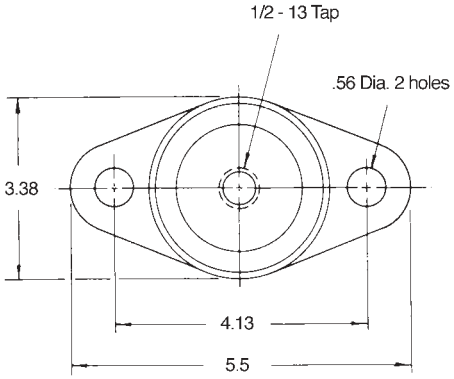
Type	Color Code	Max.Load, lbs.	Deflection, in.	
			R	RD
R2/RD2	Blue	135	0.25	0.50
	Black	170		
	Red	240		
	Green	380		
	Grey	550		

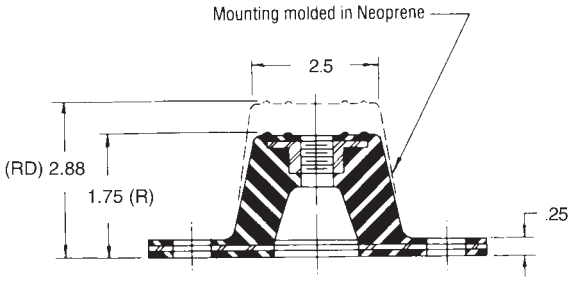


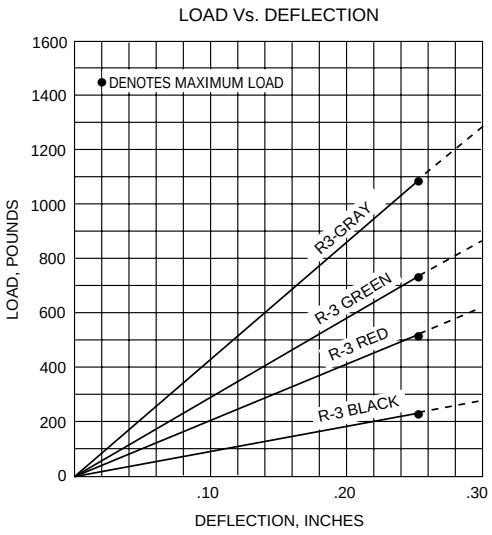


R3/RD3 Series

Type	Color Code	Max.Load, lbs.	Deflection, in.	
			R	RD
R3/RD3	Black	250	0.25	0.50
	Red	525		
	Green	750		
	Gray	1100		

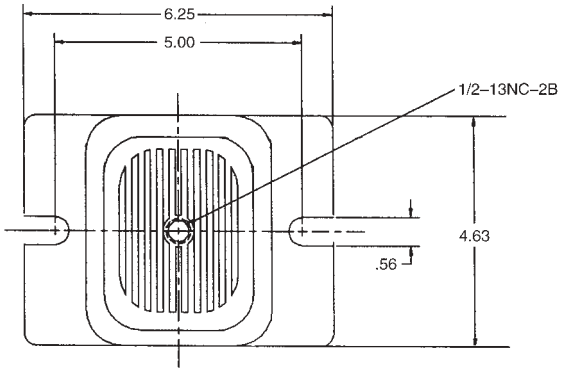


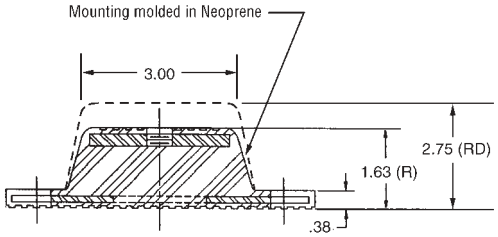


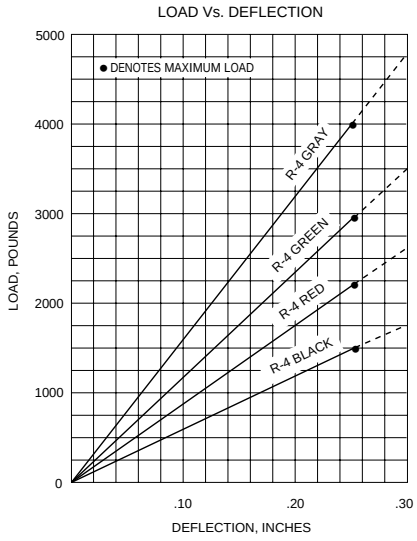


R4/RD4 Series

Type	Color Code	Max.Load, lbs.	Deflection, in.	
			R	RD
R4/RD4	Black	1500	0.25	0.50
	Red	2250		
	Green	3000		
	Gray	4000		

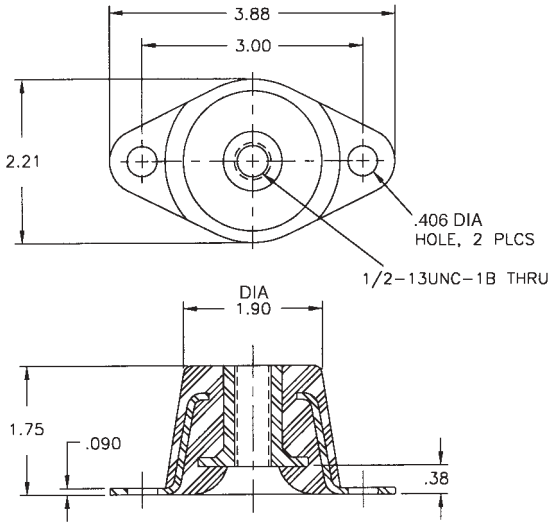






RDC2 Series Flush Type Captive Neoprene Mountings

Part Number	Axial Static Load Range (Pounds)
RDC2-175	90 – 175
RDC2-300	150 – 300
RDC2-425	225 – 425
RDC2-550	350 – 550



Features/Benefits

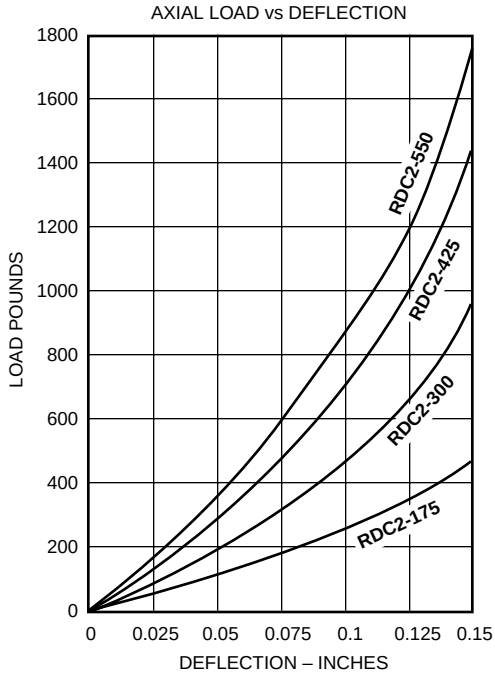
- Static Load Range 90 –550 lbs.
- Flush Attachment
- Rugged Construction
- All bonded construction
- Fail-safe design with built-in snubbing washer
- Axial to radial stiffness – approximately 1:1
- Low natural frequency (approx. 12 Hz at max. load)
- Structureborne noise attenuation

Construction/Material Data

- Structural sections – carbon steel/sintered metal
- Corrosion resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (–20°F to +180°F)
  - Damping ratio C/C_c = 0.1 (transmissibility approx. 5:1 at resonance)
- Weight - 0.6 lbs. (approx.)

Applications

- Highway and off-highway vehicles
  - Isolate engines, cabs and radiators
- Motor generators and compressors
- Pumps and centrifuges
- Portable equipment and machinery
- Marine equipment and power plants
- Fans and blowers
- HVAC Equipment - Seismic



TTB Series Flush Type Captive Neoprene Mountings

Part No.	Axial Static Load Range (Pounds)
TTB-10-500	250 – 500
TTB-10-750	500 – 750
TTB-10-1000	750 – 1000

Features/Benefits

- Static Load Range 250 – 1,000 lbs.
- Normally recommended for vertically applied loads (see note below)
- Low natural frequency (approx. 9 Hz at max. rated load)
- Structureborne noise attenuation
- Low Profile
- Ease of installation
- Fail-safe design

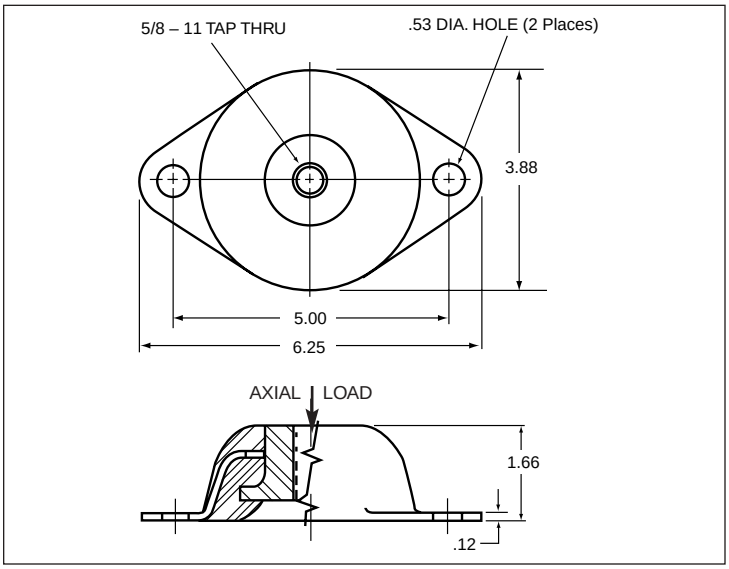
Construction/Material Data

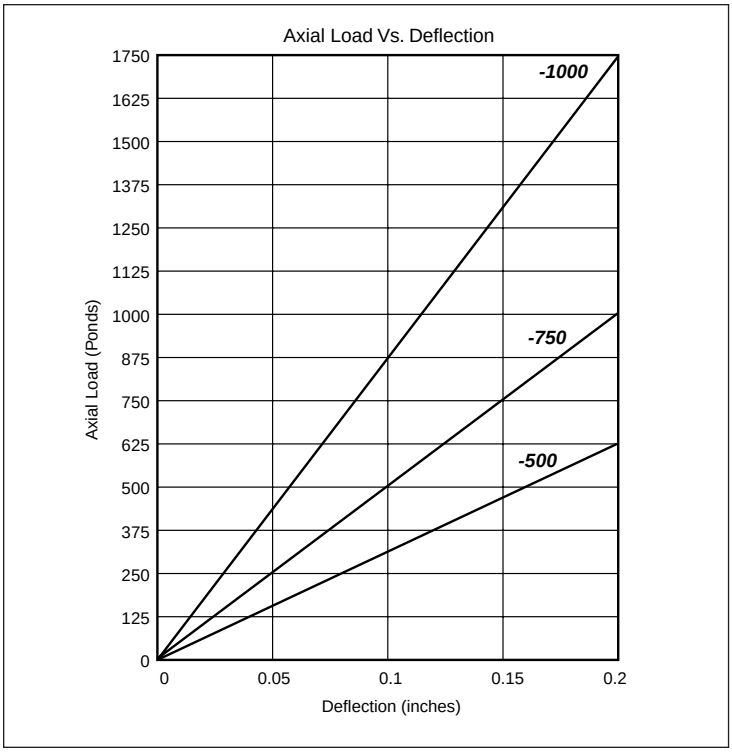
- Structural sections - carbon steel
- Rust resistant coating on metal surfaces
- Neoprene elastomer
  - Resists oils, ozone and most solvents
  - Operating temperature range (-20°F to +180°F)
  - Damping Ratio C/C_C = .1 (transmissibility approx. 5:1 at resonance)
- Weight - 1.8 lbs. (approx.)

Applications

- Motor Generators and Compressors
- Electric Motors
- HVAC Equipment
- Mobile Equipment and Machinery
- Centrifuges and Pumps
- In-Plant Machinery

Note: Can be used in tension or shear. (Consult factory for tension or shear ratings.)





GR/GC Series Low Profile, All Attitude Shock & Vibration Isolators

Features/Benefits

- 7 Load Ratings to 50 lbs./mt.
- All attitude mounting
- Structureborne noise isolation
- Nominal 30 Hz natural frequency
- Plate or cup configuration
- Rugged lightweight construction
- Low profile configuration
- Fail-safe construction
- Silicone or neoprene elastomer

Typical Applications

- Airborne, shipboard and vehicular electronics
- Small motors, pumps and compressors
- Fans and blowers
- Electronic and computer equipment
- Appliances

Elastomeric Selection/Capabilities

Requirement	Silicone	Neoprene
Temperature Range	–80°F to 300°F	–20°F to 180°F
Approx. Damping Factor (C/Cc)	0.15	0.10
Oil Resistance	Good	Good
Ozone Resistance	Excellent	Good
Heat Aging Resistance	Excellent	Good

GR2

GC2

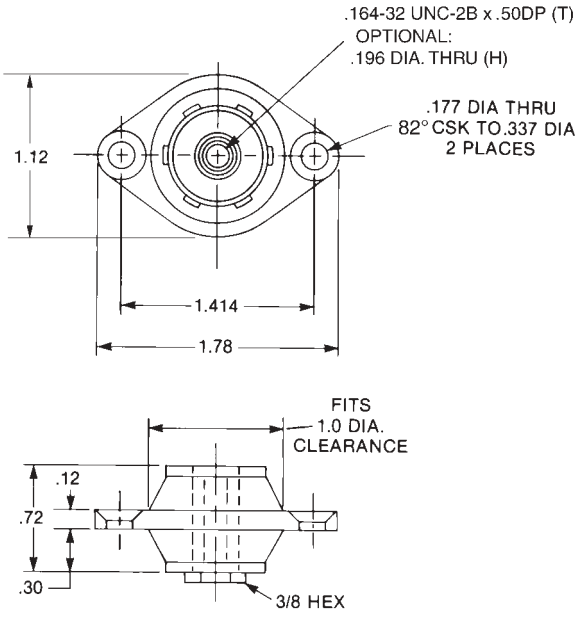
GR3

GC3

GR2 Series

Max. Load/Mount (lbs)	Plate Type/ Tapped Core	Plate Type/ Thru Core
5.0	GR2-5T( )	GR2-5H( )
7.0	GR2-7T( )	GR2-7H( )
10.0	GR2-10T( )	GR2-10H( )

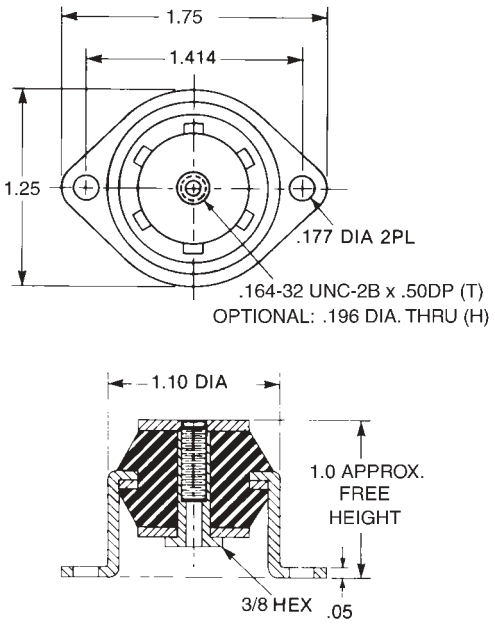
Fill in ( ) **S** - Silicone or **N** – Neoprene
Approx weight – .042 lbs.



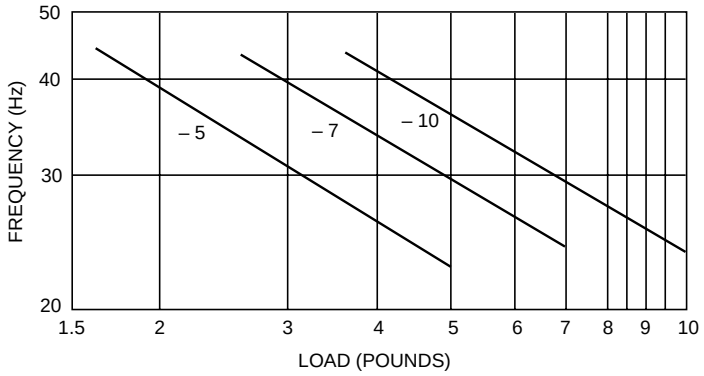
GC2 Series

Max. Load/Mount (lbs)	Cup Type/ Tapped Core	Cup Type/ Thru Core
5.0	GC2-5T( )	GC2-5H( )
7.0	GC2-7T( )	GC2-7H( )
10.0	GC2-10T( )	GC2-10H( )

Fill in ( ) **S** - Silicone or **N** – Neoprene
Approx weight – .042 lbs.



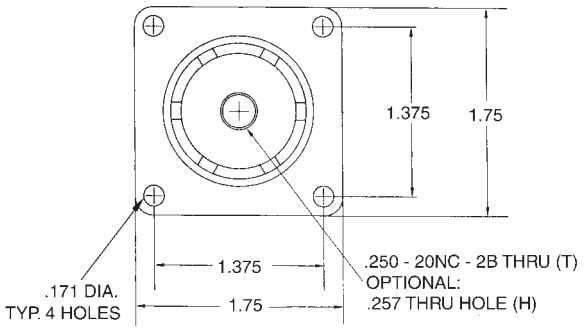
LOAD/NATURAL FREQUENCY
Vibration Input – .036 in (D.A)

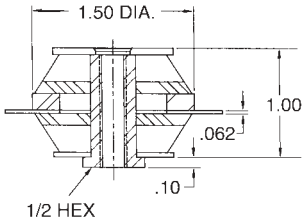


GR3 Series

Max Load/Mount lbs. Stationary	Vehicular	Plate Type/ Tapped Core	Plate Type/ Thru Core
15	7	GR3-15T( )	GR3-15H( )
25	11	GR3-25T( )	GR3-25H( )
35	17	GR3-35T( )	GR3-35H( )
50	30	GR3-50T( )	GR3-50H( )

Fill in ( ) **S** - Silicone or **N** – Neoprene
Approx weight – 0.2 lbs.

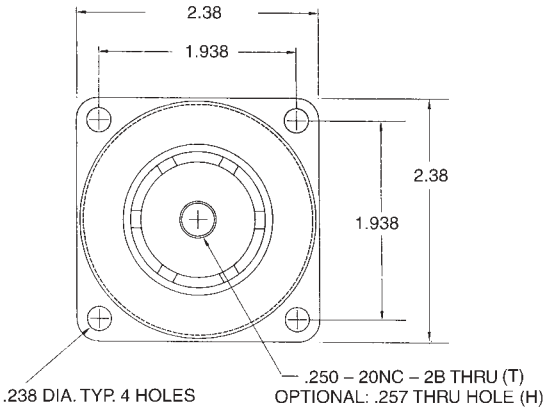


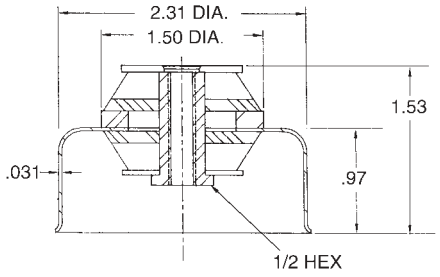


GC3 Series

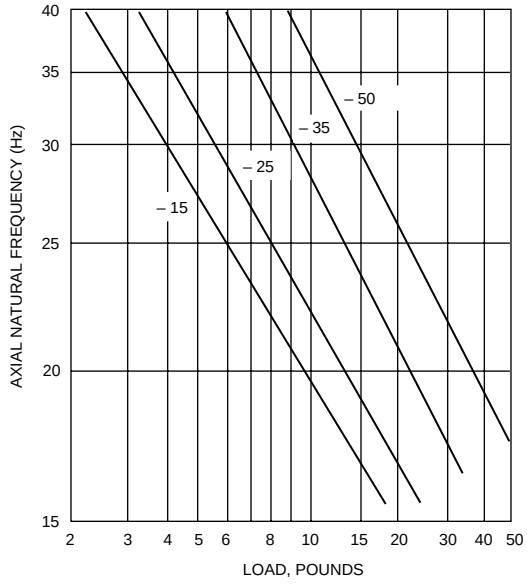
Max Load/Mount lbs. Stationary	Vehicular	Plate Type/ Tapped Core	Plate Type/ Thru Core
15	7	GC3-15T( )	GC3-15H( )
25	11	GC3-25T( )	GC3-25H( )
35	17	GC3-35T( )	GC3-35H( )
50	30	GC3-50T( )	GC3-50H( )

Fill in ( ) **S** - Silicone or **N** – Neoprene
Approx weight – 0.2 lbs.





LOAD Vs. NATURAL FREQUENCY



LD Series Elastomer Mounts

Features/Benefits

At maximum rated load, the LD mounts attenuate a 15g, 11 millisecond shock to 10 g's and a 30g, 11 millisecond shock to 16 g's. Axial to radial stiffness is approximately 2.3:1. Transmissibility at resonance is approximately 5 to 1 for silicone and 7 to 1 for neoprene.

Applications

The LD Series mount is a mid-frequency isolator with a large deflection capability to give both shock and vibration protection. The standard neoprene version is for applications where extreme high or low temperatures are not a concern. The alternate Polybutadiene version is for applications with operating temperatures to -65°F. Both units are applicable where high amplitude vibration inputs are expected or large shock deflections are needed.

Environmental Data

LD isolators in neoprene operate over a temperature range of -20°F to +180°F and the mount is resistant to oil and ozone. For lower temperatures, LD2 mounts are available in Polybutadiene.

Installation Data

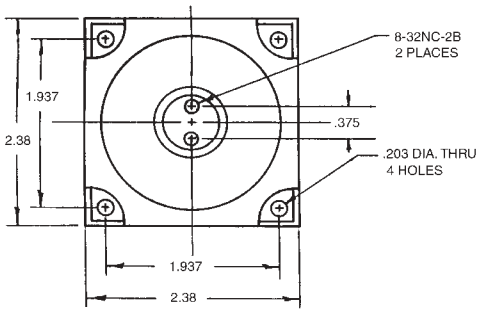
No special tools are required for installation. The central core is tapped to accept common screws. This mount is not inherently fail-safe. A suitable means of restraining the isolated sytem is required.

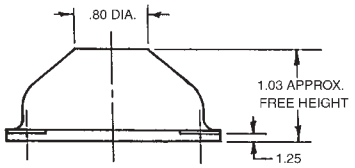
LD1

LD2

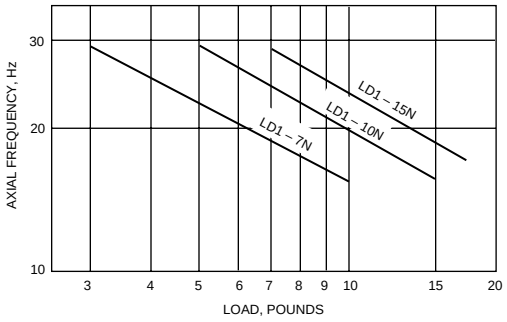
LD1 Series

Part Number	Axial Static Load Max, (pounds)
LD1-7N	7
LD1-10N	10
LD1-15N	15





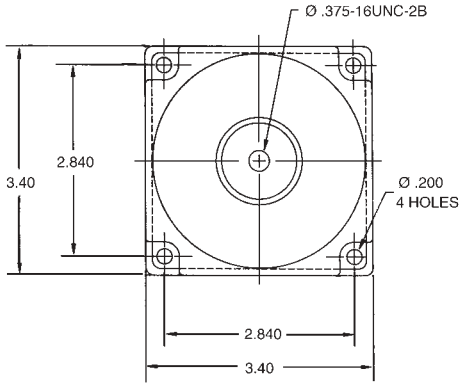
AXIAL LOAD Vs. FREQUENCY

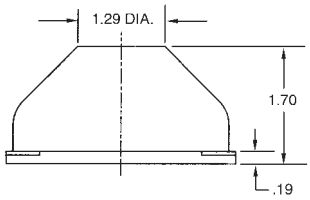


Tested with .036 in. D.A. input

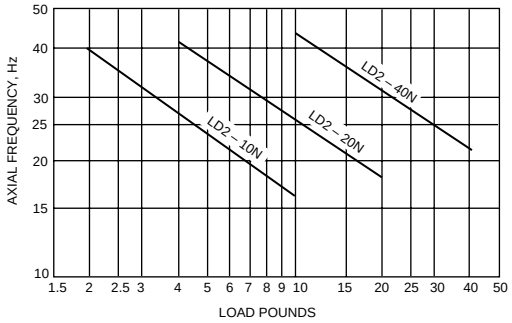
LD2 Series

Part Number	Axial Static Load Max, (pounds)
LD2-10N	10
LD2-20N	20
LD2-40N	40





AXIAL LOAD Vs. FREQUENCY

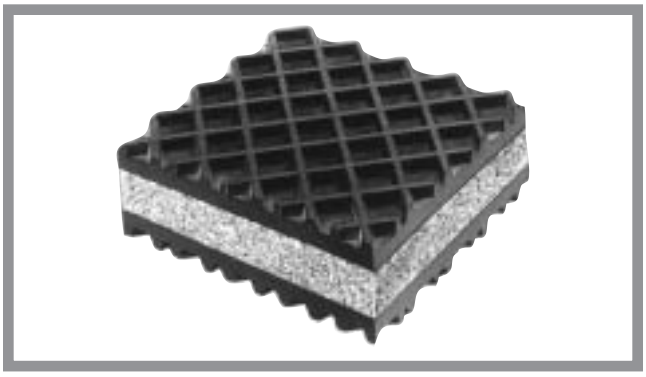


Tested with .036 in. D.A. input

Pad Type Mounts Elastomer & Cork

Elasto-Rib

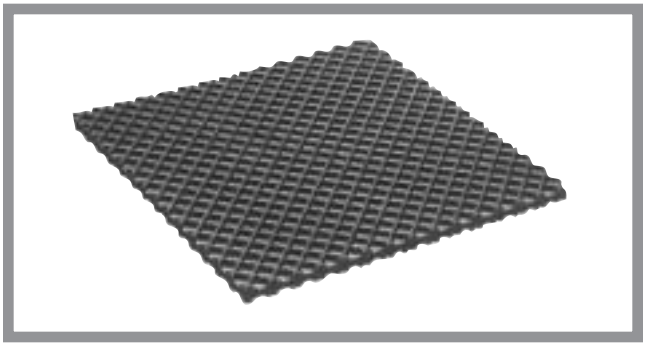
Elasto-Rib has a core of high grade cork plate, permanently bonded between two layers of waffle design, oil-resistant synthetic rubber. The waffle design increases deflection and forms a non-skid surface which resists "creeping" of equipment. Bolting or cementing to the floor is usually eliminated.



Load Range:
Standard Capacity to 60 lbs./sq. inch
(Consult factory for higher capacity loading)
Thickness: 1"
Max Sheet Size; 24" x 36"
Suggested Loadings:
50 lbs./sq. in. for engines, compressors, fans.
40 lbs./sq. in. for punch presses, shears etc.

Elasto-Grip

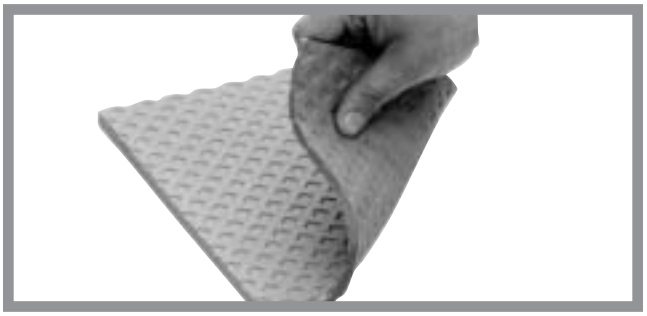
Elasto-Grip waffle-embossed oil-resistant synthetic sheet is available without cork center



Load Range:
Standard Capacity to 60 lbs./sq. inch
High Capacity to 60-120 lbs./sq. inch
Thickness: ¼" (waffle-embossed – one side only)
½" (waffle-embossed – both sides)
Max. Sheet Size: 24" x 36"
Suggested Loadings;
50 lbs./sq. in. for engines, compressors, fans.
40 lbs./sq. in. for punch presses, shears etc.

Korpad

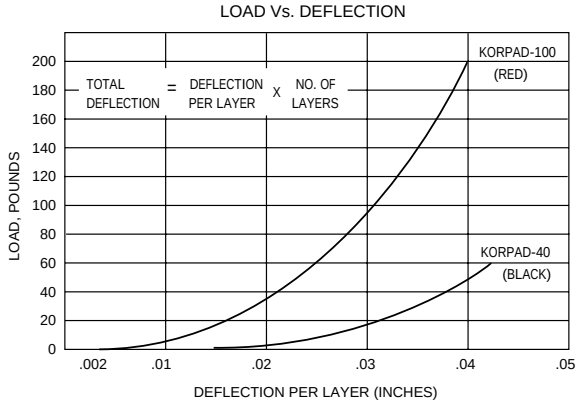
Korpad is a high-quality, durable, neoprene pad material with waffle design molded on to both faces. It is resistant to water, oils, cleaning compounds, heat and other environments normally found in manufacturing and processing plants. Tear and abrasion resistance is excellent while tensile strength and compressive strength is extremely high. Korpad is ¼" thick in 24" x 24" sheets and is available in load ranges to 200 lbs./sq. in.
Black Korpad is for use with lighter equipment.
Red Korpad is used for heavy duty applications.



Korpads have been tested to over 1000 PSI without failure. Recommended loads:

Type	Color	Design Load (PSI)	Maximum Load (PSI)
Korpad 1000	Red	100	200
Korpad 40	Black	40	60

For static applications, where weight is known, maximum loads can be used. For impact machinery, or where weight distribution is not accurately known, use design loads only.



Installation Configurations

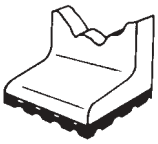


Fig.1 One layer Korpad. No levelling provision

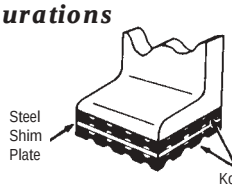


Fig.2. Multiple layer Korpad. For increased vibration isolation efficiency and levelling, if desired of precision grinders, impact machines etc.

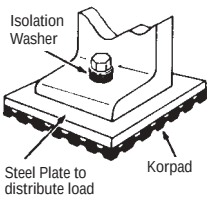


Fig.3. Korpad with load distributing steel plate. For use when machine leg is smaller than the area of Korpad required. Drawing showws optional bolt down arrangement. If bolt is not used, tack weld leg to plate.

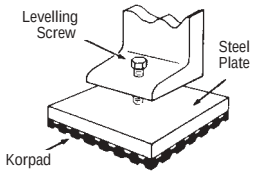


Fig.4. Method used to level machines having built-in levelling screws

Pad Type Mounts Elastomer

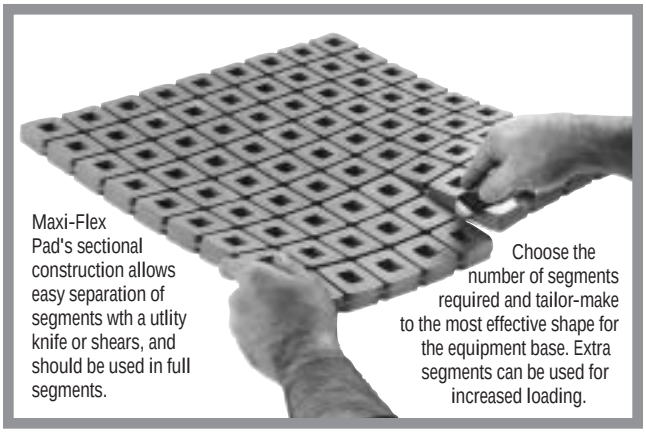
Maxi-Flex 'E-Z Cut' Pads

- Available in 4 load ranges
- Load Ranges from 120 to 360 lbs. per 2" square segment
- Standard sheet size – 18" x 18" x ¾" thick
- Easily cut to fit required loading
- Molded in colored oil-resistant Neoprene* for easy identification

**Also available in molded bridge bearing neoprene and other elastomers*

Typical Applications

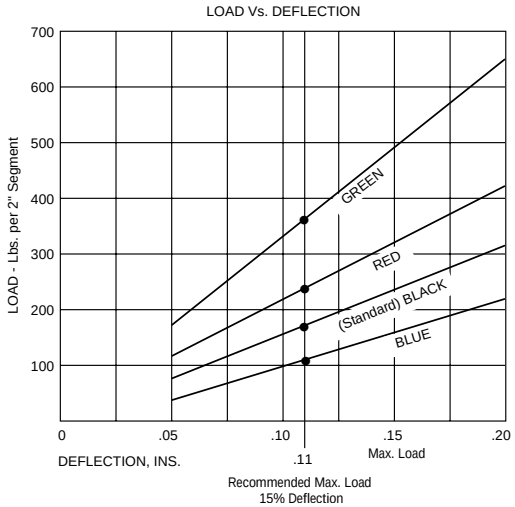
- HVAC equipment - Copmpressors - Chillers
- Motor Generators - Diesel Generator Sets
- Presses - Lathes - Pumps - Shears
- Steam Generators - Transformers - Textile Machinery



Recommended Load Ratings per 2" x 2" segment

Color Code	Lbs.
Blue	120
Black (standard)	180
Red	240
Green	360

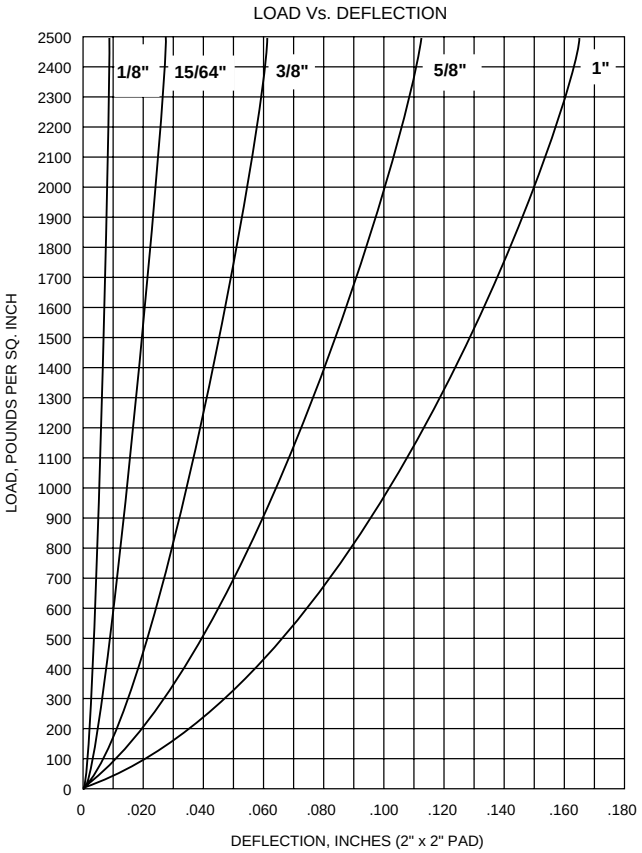
Typical Loading Calculation Example using Standard (black) MaxiFlex:
Load is 1000 lbs., capacity of 2" sq. segments is 180 lbs.,
therefore $\frac{1000}{180}$ *= 5.56 segments, use any combination of 6 segments (1 x 6 or 2 x 3).*



*For increased deflection, Maxi-Flex Pads can be stacked with 16 guage shims separating the layers

Fabriply Isolation Pads

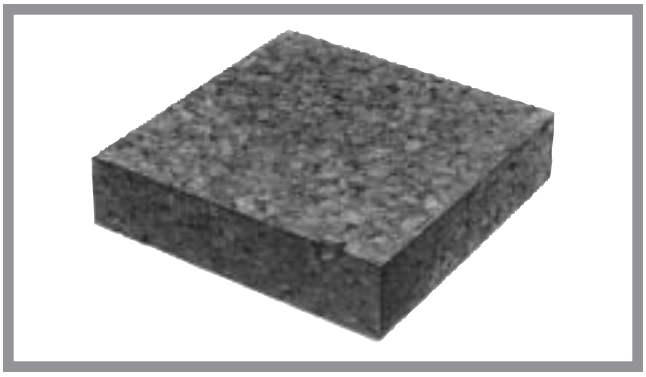
Fabriply Isolation Pads consist of multiple layers (64 plies to 1") of the highest quality cotton duck weighing 8.1 oz./sq.yd., impregnated and bound together by a specially formulated elastomer compound.
1,000 psi loading capability provides shock and vibration isolation under extremely heavy loads. Available in stock thicknesses ⅛" to 1".



Pad Type Mounts Cork & 'EU' Damper

Machinery Cork

Machinery isolation cork plates are strong and durable resilient boards made of pure granules of cork, compressed and baked under pressure with accurately controlled density. They can be installed directly under many machines. For large foundations in pits, plates of cork are applied directly to the bottom and sides of the pit, and covered with asphalt felt. Joints are sealed with asphalt, presenting an unbroken, watertight form in which the concrete is poured. Korfund machinery cork resists oil, water and acids normally encountered in industrial applications. It is unaffected by sunlight or cold. Max. safe temperature for continued use without charring: 180° F.

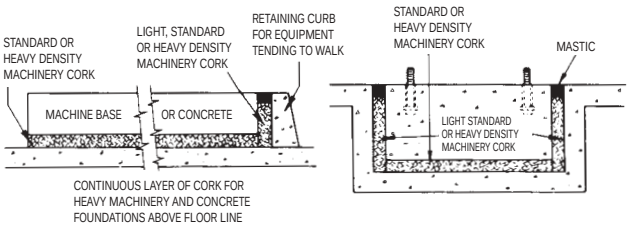


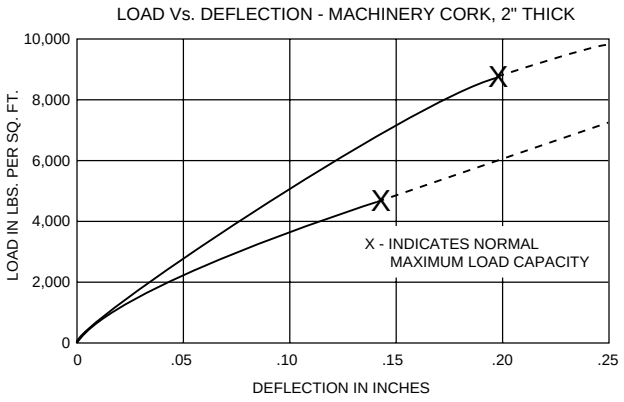
Physical Properties

Density Designation	Heavy
Weight, Lbs./Board Ft.	1.5 – 1.7
Load Capacity, Lbs./Sq.Ft.	4300 – 8000
Thickness Available, Inches	1, 2, 3

Standard Sheet Size: 12" x 36"

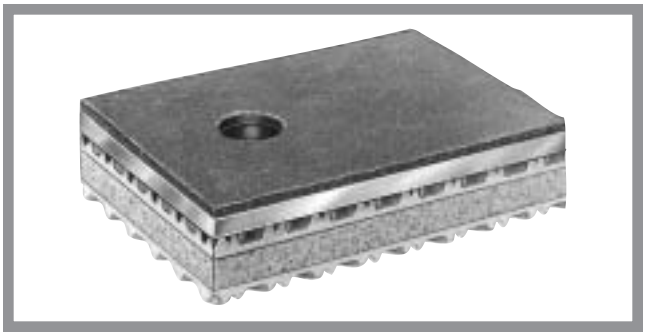
Installation Configurations



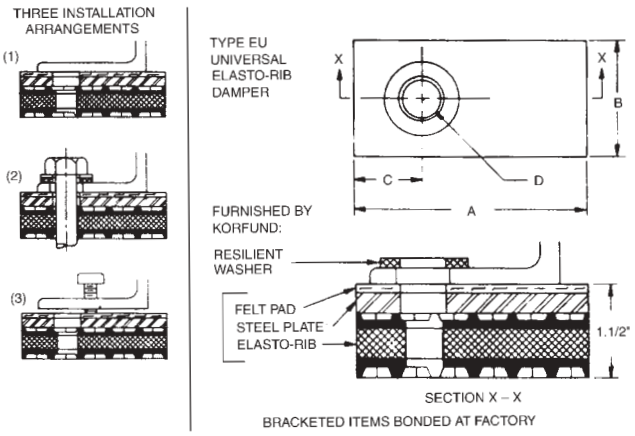


'EU' Elasto-Rib Damper

Type 'EU' universal Elasto-Rib Damper is furnished with a load distributing steel plate permanently bonded to the Elasto-Rib pad, for use where the machine leg is smaller than the area of Elasto-Rib required, or when mounting without built-in levelling is needed. Installation is simple – the machine may normally be placed on the damper's non-skid top plate without any fastening or may be cemented (arrangement 1), or bolted through the offset hole provided (arrangement 2). Resilient washers required for arrangement 2 are furnished at no charge with all EU dampers. Machines having built-in levelling devices are installed as shown in arangement 3.



Installation Configurations



Loads/Dimensions

Damper Size	Max. load - Lbs. Non-Impact	Max. load - Lbs. Impact†	Dimensions - Inches A	B	C	D
EU-4	390*	260	2¾	2½	⅜	⅝
EU-5	545*	362	4	2½	1	⅝
EU-8	785	523	2¾	2½	⅝	⅝
EU-10	1090	728	4	2½	1	⅝
EU-14	1440*	960	6	4	1½	⅝
EU-21	2100*	1400	7	5	2	⅝
EU-28	2880	1920	6	4	1½	⅝
EU-42	4200	2800	7	5	2	⅝
EU-60	6000*	4000	12	8	4¾	¾
EU-85	8500	5660	10	7	3½	¾
EU-120	12,000	8000	12	8	4¾	¾

†For machines like punch presses, shears, etc.
*Standard Capacity Elasto-Rib. All others, High Capacity

Series CE/CESS Steel Spring Vibration Isolators

Features/Benefits

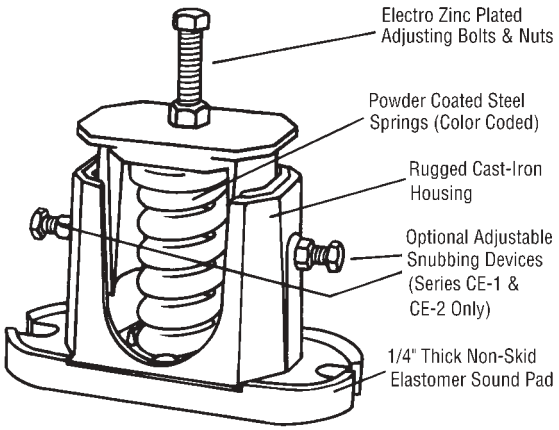
- Effective Vibration Control
- Loads up to 10,500 lbs.
- Static Deflections up to 1.36"
- Available with, or without adjustable snubbing
- Rugged cast-iron housing
- Quickly and easily installed

Applications

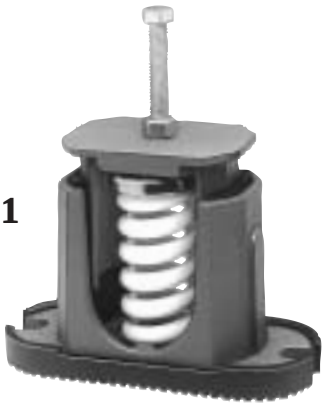
- Stationary Equipment
- HVAC Equipment
- Compressors, Pumps
- Motor Generator Sets
- Fans, Blowers

Korfund Series CE/CESS Spring Isolators are available in 4 sizes for loads up to 10,500 lbs., and static deflections up to 1.36". See Load/Deflection tables for actual ratings. Cast-iron housings are shop primed with a rust inhibitor primer. All nuts and bolts are electro zinc plated, and coil springs are powder coated and color coded for easy identification.

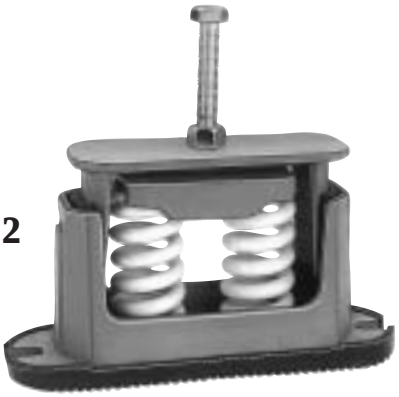
Optional: Series CESS-1 and CESS-2 Isolators are furnished with adjustable horizontal snubbing devices to control oscillation and withstand lateral forces. (Not available on CE-4 or CE-7). All dimensions, loads, deflections, are the same as CE-1 and CE-2 un-snubbed mounts.



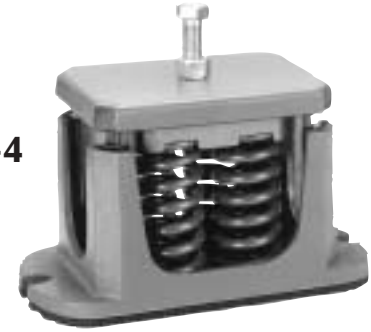
CE-1



CE-2



CE-4



CE-7

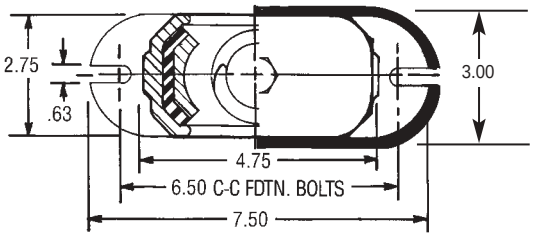
CE-1 Series

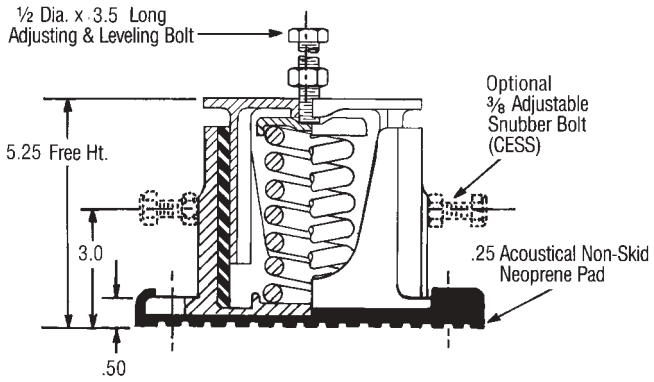
Loads/Deflections

Type & Size	Max. Load	Deflection (inches)	Isolator Constant Pounds/Inch	Spring Color	No. of Springs
CE-1-19	85	1.36	63	PINK	
CE-1-21	115	1.31	87	BLACK	
CE-1-22	170	1.28	133	BLUE	
CE-1-23	225	1.26	179	YELLOW	
CE-1-24	325	1.23	264	BROWN	
CE-1-25	450	1.22	368	RED	ONE
CE-1-26	600	1.17	513	PURPLE	
CE-1-27	750	1.06	707	ORANGE	
CE-1-28	900	1.02	881	GREEN	
CE-1-31	1100	.83	1327	GRAY	
CE-1-32	1300	.74	1758	WHITE	
*CE-1-35	1500	.70	2145	GOLD	

*Free Height .50 higher than shown in diagram

Note: Series CESS-1 has the same dimensions, loads & deflections as Series CE-1





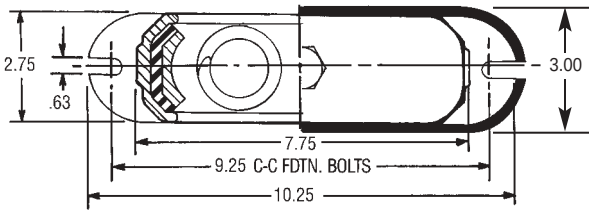
CE-2 Series

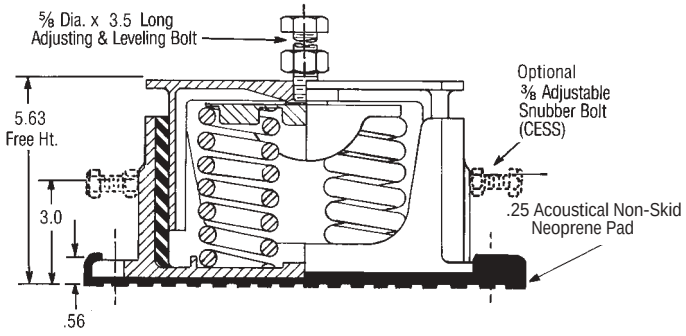
Loads/Deflections

Type & Size	Max. Load	Deflection (inches)	Isolator Constant Pounds/Inch	Spring Color	No. of Springs
CE-2-25	900	1.22	736	RED	
CE-2-26	1200	1.17	1026	PURPLE	
CE-2-27	1500	1.06	1414	ORANGE	
CE-2-28	1800	1.02	1762	GREEN	TWO
CE-2-31	2200	.83	2654	GRAY	
CE-2-32	2600	.74	3516	WHITE	
*CE-2-35	3000	.70	4290	GOLD	

*Free Height .50 higher than shown in diagram

Note: Series CESS-2 has the same dimensions, loads & deflections as Series CE-2



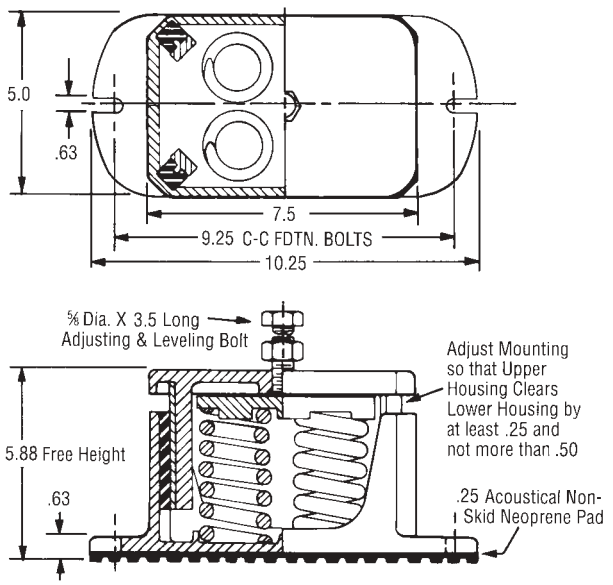


CE-4 Series

Loads/Deflections

Type & Size	Max. Load	Deflection (inches)	Isolator Constant Pounds/Inch	Spring Color	No. of Springs
CE-4-25	1800	1.22	1475	RED	
CE-4-26	2400	1.17	2051	PURPLE	
CE-4-27	3000	1.06	2830	ORANGE	
CE-4-28	3600	1.02	3529	GREEN	4
CE-4-31	4400	.83	5301	GRAY	
CE-4-32	5200	.74	7027	WHITE	
*CE-4-35	6000	.70	8571	GOLD	

*Free Height .50 higher than shown in diagram

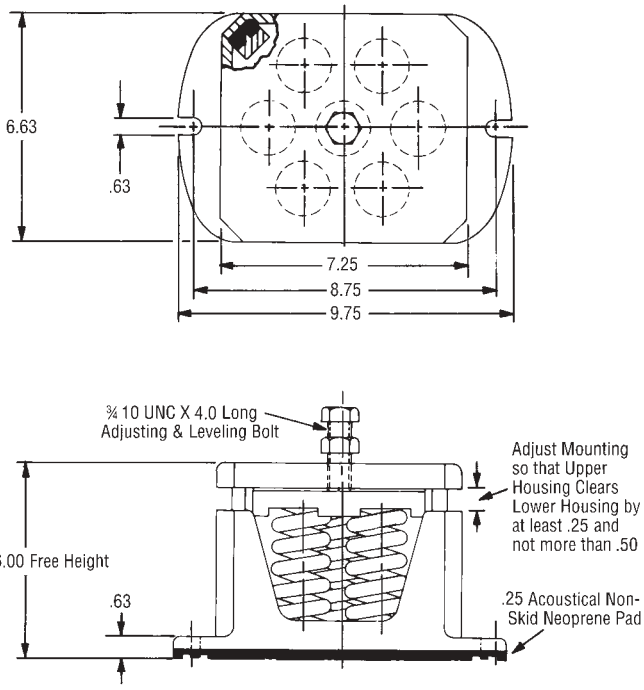


CE-7 Series

Loads/Deflections

Type & Size	Max. Load	Deflection (inches)	Isolator Constant Pounds/Inch	Spring Color	No. of Springs
CE-7-25	3150	1.22	2581	RED	
CE-7-26	4200	1.17	3589	PURPLE	
CE-7-27	5250	1.06	4592	ORANGE	
CE-7-28	6300	1.02	6176	GREEN	7
CE-7-31	7700	.83	9277	GRAY	
CE-7-32	9100	.74	12297	WHITE	
*CE-7-35	10500	.70	15000	GOLD	

*Free Height .50 higher than shown in diagram



SNE Series Steel Spring Vibration Isolators

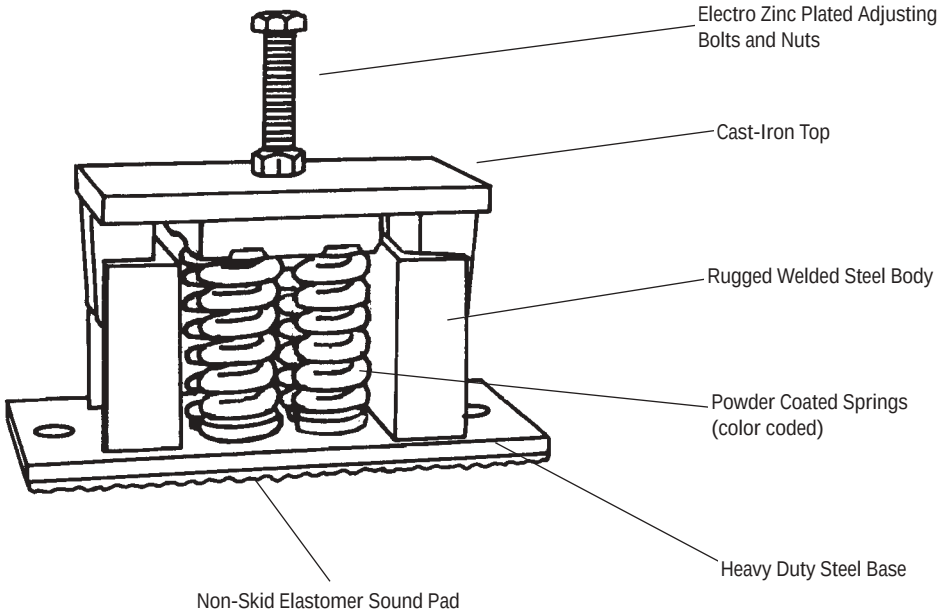
Features/Benefits

- Load Ranges from 200 to 5200 lbs.
- Sturdy, welded steel baseplate construction
- Effective vibration control
- Quick and easy installation
- External levelling provision

Applications

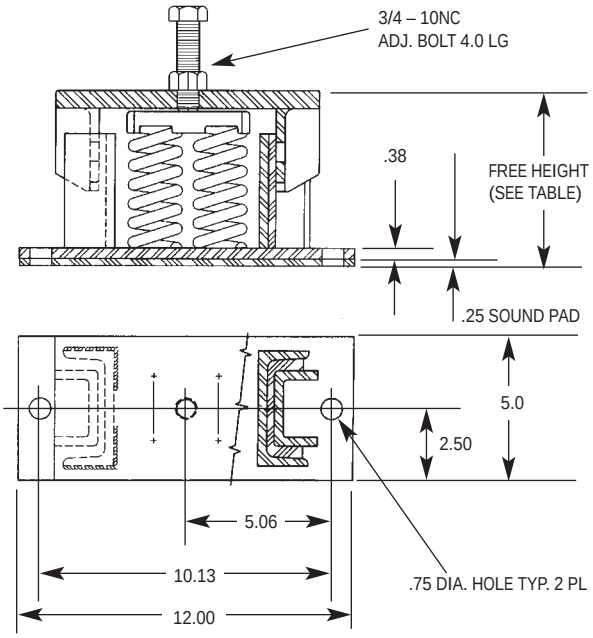
- Stationary Equipment
- HVAC Equipment
- Compressors, Pumps
- Motor Generator Sets
- Fans, Blowers

Korfund's Series SNE Spring Isolator offers excellent vibration isolation within a rugged, heavy duty housing. It is capable of supporting up to 5200 lbs., and is recommended for stationary applications such as generators and HVAC equipment.
The bottom housing is constructed of welded steel which can be bolted to the floor, and the cast-iron top housing offers external levelling adjustment capability.



Loads/Stiffness

Type & Size	Rated Capacity (pounds) Max. Steady	Isolator Stiffness (lbs./in.)	Min Free Height	Spring Color
SNE-50	200	100		Yellow
SNE-51	500	250		Orange
SNE-52	800	480		Brown
SNE-53	1200	760	6.13	Black
SNE-54	2000	1380		Green
SNE-55	2800	2240		Blue
SNE-56	4800	6600		Purple
SNE-45	1300	1760		Brown
SNE-46	1800	3200		Red
SNE-47	2400	4900	5.50	Purple
SNE-57	4400	8520		Blue
SNE-68	5200	10,600		Green



L Series Steel Spring Vibration Isolators

Features/Benefits

- Load Ranges from 50 to 23,000 lbs.
- Available in 6 sizes
- Reduces vibration, shock and noise transmission
- Durable gray cast iron housings
- Fully adjustable snubbing (Types LK & LI)
- External or internal levelling adjustment

Advantages

Series L Vibration Isolators are the most versatile vibration control mountings available. They are offered in several standard versions; in addition, special modifications are available at nominal extra charges.

Level Adjustment: Regular, external adjustment (type LK and LN) for the majority of installations or internal adjustment (type LI and LO) are standard. The types LI and LO have internal adjustment which permits their location anywhere, irrespective of availability or location of bolt holes in the machine base or concrete foundation (see arrangements on next page). The size J is available with internal adjustment only.

Adjustment Bolt: Standard bolt will pass through 2" machine leg. Longer bolts for thicker legs are available.

Snubber Adjustment: Fully adjustable snubbing by means of end nuts is standard for LK and LI isolators; for size A, adjustment is slightly different from arrangement shown. LN and LO have non-adjustable inserts for alignment purposes, without any snubbing action; they can be converted to LK and LI in the field.

Snubber Inserts: Oil-resistant synthetic rubber is standard for all sizes and styles (except for size A which uses sponge rubber).

Springs: Oil-tempered high carbon steel is standard. Special: Softer springs for lighter loads, stainless steel or coated springs for corrosion resistance. All springs are color coded for easy identification and supplied with a new powder coated finish as standard for improved corrosion resistance.

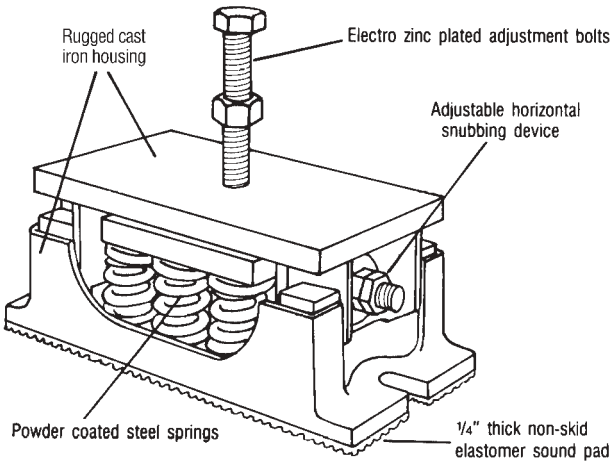
Housing Materials: All housings except for H and J sizes are durable cast grey iron per ASTM A48 as standard. The H and J housings are of welded steel construction.

Fastening To Floor: Base plate with slotted bolt holes and bonded synthetic rubber sound pad and isolation washers for bolting to floor, are standard.

Fastening To Machine: Single bolt is standard on types LK, and LN isolators. Synthetic rubber sound pad cemented to top plate is standard on types LI and LO which have no standard provision for bolting; however, one tapped hole will be furnished without charge upon request. Special: extra tapped holes in top plate for bolting.

Sound Damping: For maximum noise absorption, Korfund waffle-embossed synthetic rubber pads are included as standard as indicated above.

Protective Coatings: Vista Green enamel and electro-plated bolts and nuts are standard.



Ordering Designations

Interior Designations			TOP AND BOTTOM PLATE PADS
Type	Levelling	Snubbing	ALL ISOLATORS SUPPLIED WITH SOUND PAD CEMENTED TO BASE PLATE.
LK	External	Adjustable	
LI	Internal	Adjustable	LI & LO ISOLATOR TOP PLATES WITHOUT TAPPED HOLES FURNISHED WITH RUBBER SOUND PADS
LN	External	Non-Adjustable	
LO	Internal	Non-Adjustable	

Example LNA-45 = External levelling, non-adjustable snubbing. "A" size housing. #45 spring, rubber pad, and isolation washers for bolted arrangement.

ISOLATOR		MAX. CAPACITY IN POUNDS (2)		ISOLATOR CONSTANT LBS./INCH (3)	FREE HEIGHT (5) INCHES		MINIMUM WORKING HEIGHT (4)	QUANTITY OF SPRINGS
HOUSING SIZE	SPRING NUMBER (1)	MAX. STEADY	MAX. IMPACT		LK & LN	LI & LO		
A	50	50	—	25	5½"	6"	4⅞"	1
	51	125	—	62.5				
	52	200	—	120				
	53	300	—	190				
	54	500	—	345				
	55	700	—	560				
	56	1,200	—	1,650				
	45	325	260	440	4⅞"	4⅞"	4⅞"	
	46	450	360	800				
	47	600	480	1,225				
	57	1,100	825	2,130				
	68	1,300	1,225	2,650		5"		
D	50	100	—	50	5¾"	6½"	4½"	2
	51	250	—	125				
	52	400	—	240				
	53	600	—	380				
	54	1,000	—	690				
	55	1,400	—	1,120				
	56	2,400	—	3,300				
	45	650	520	880	4⅜"	5⅛"		
	46	900	720	1,600				
	47	1,200	960	2,450				
	57	2,200	1,650	4,260				
	68	2,600	2,450	5,300	4¾"	5½"		
E	50	200	—	100	5⅞"	6⅞"	4⅝"	4
	51	500	—	250				
	52	800	—	480				
	53	1,200	—	760				
	54	2,000	—	1,380				
	55	2,800	—	2,240				
	56	4,800	—	6,600				
	45	1,300	1,040	1,760	4⅝"	5½"		
	46	1,800	1,440	3,200				
	47	2,400	1,920	4,900				
	57	4,400	3,300	8,520				
	68	5,200	4,900	10,600	5"	5⅞"		
G	50	450	—	225	6¼"	7¼"	4¾"	9*
	51	1,125	—	563				
	52	1,800	—	1,080				
	53	2,700	—	1,710				
	54	4,500	—	3,105				
	55	6,300	—	5,040				
	56	10,800	—	14,850				
	45	2,925	2,340	3,960	4¾"	5¾"		
	46	4,000	3,200	7,200				
	47	5,400	4,320	11,025				
	57	9,900	7,425	19,160	4⅞"	5⅞"		
	68	11,700	11,025	23,850	5¼"	6¼"		
H	756	11,450	8,580	17,320	7¼"	8⅜"	6¾"	6
	757	13,370	10,000	20,200			LKH	7
	758	15,300	11,460	23,090			7¾"	8
	759	17,200	12,900	25,970			LIH	9
J	7512	22,900	17,160	34,640		8¾"	8¼"	12

(1) First 2 digits indicate spring designation number. Additional digits, if any, indicate quantity of springs used. Different springs may be combined in an isolator for special conditions; for example, LKE 552-562 has two #55 and two #56 sprngs.

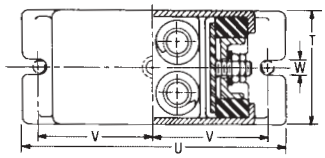
(2) Ratings listed under "STEADY" are maximum for steady running applications (no impact). Ratings listed under "IMPACT" are maximum for impact applications on punch presses, hammers, and pulverizers.

(3) Static spring deflection in inches = load ÷ isolator constant.

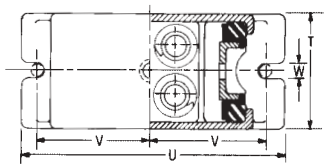
(4) Minimum operating height = free height – spring deflection, or dimension shown in referenced column, whichever is greater.

(5) Free height tolerance ± 1/4 inch.

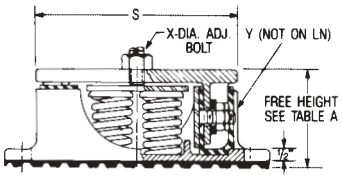
*7 or 8 springs may be used for special conditions.



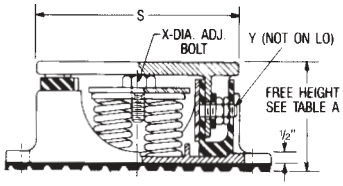
TYPICAL PLAN VIEW OF THE TYPES LK & LI ISOLATOR, SIZE E SHOWN



TYPICAL PLAN VIEW OF THE TYPES LN & LO ISOLATOR, SIZE E SHOWN



TYPICAL ELEVATION VIEW OF THE TYPES LK & LN ISOLATOR, SIZE E SHOWN



TYPICAL ELEVATION VIEW OF THE TYPES LI & LO ISOLATOR, SIZE E SHOWN

Dimensions (inches)

Dimen. Letter	Isolator Housing Size					
	A	D	E	G	H	J
S	4	6⅞	9⅛	11½	11½	13¾
T	2½	5	5	7	7	7
U	6⅞	9½	11¾	14	14	16¼
V	2¾	4	5⅛	6¼	6¼	7⅜
W	9/16	9/16	11/16	13/16	13/16	13/16
X	½	⅝	¾	1	1¼*	1*
Y	5/16	⅝	⅝	¾	¾	¾

*Adjusting Rod LIH 1" Diameter
**LIJ Furnished with two internal Adjustment Bolts

Spring Color Code for Easy Identification

Spring No.	Color	Spring No.	Color
50	Yellow	45	Brown
51	Orange	46	Red
52	Brown	47	Purple
53	Black	57	Blue
54	Green	68	Green
55	Blue	75	Pink
56	Purple		

L Series Steel Spring Vibration Isolators

Features/Benefits

- Load Ranges from 50 to 23,000 lbs.
- Available in 6 sizes
- Reduces vibration, shock and noise transmission
- Durable gray cast iron housings
- Fully adjustable snubbing (Types LK & LI)
- External or internal levelling adjustment

Advantages

Series L Vibration Isolators are the most versatile vibration control mountings available. They are offered in several standard versions; in addition, special modifications are available at nominal extra charges.

Level Adjustment: Regular, external adjustment (type LK and LN) for the majority of installations or internal adjustment (type LI and LO) are standard. The types LI and LO have internal adjustment which permits their location anywhere, irrespective of availability or location of bolt holes in the machine base or concrete foundation (see arrangements on next page). The size J is available with internal adjustment only.

Adjustment Bolt: Standard bolt will pass through 2" machine leg. Longer bolts for thicker legs are available.

Snubber Adjustment: Fully adjustable snubbing by means of end nuts is standard for LK and LI isolators; for size A, adjustment is slightly different from arrangement shown. LN and LO have non-adjustable inserts for alignment purposes, without any snubbing action; they can be converted to LK and LI in the field.

Snubber Inserts: Oil-resistant synthetic rubber is standard for all sizes and styles (except for size A which uses sponge rubber).

Springs: Oil-tempered high carbon steel is standard. Special: Softer springs for lighter loads, stainless steel or coated springs for corrosion resistance. All springs are color coded for easy identification and supplied with a new powder coated finish as standard for improved corrosion resistance.

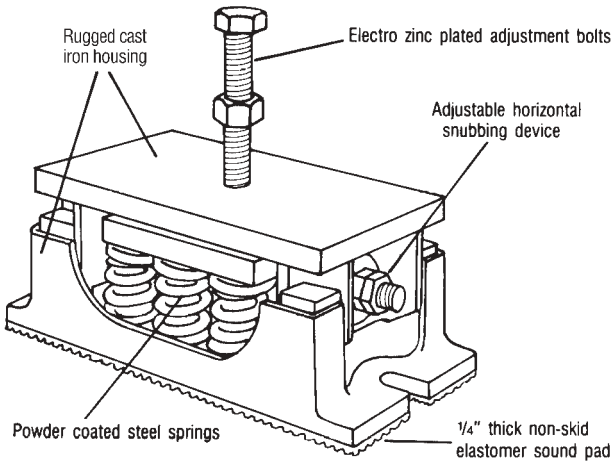
Housing Materials: All housings except for H and J sizes are durable cast grey iron per ASTM A48 as standard. The H and J housings are of welded steel construction.

Fastening To Floor: Base plate with slotted bolt holes and bonded synthetic rubber sound pad and isolation washers for bolting to floor, are standard.

Fastening To Machine: Single bolt is standard on types LK, and LN isolators. Synthetic rubber sound pad cemented to top plate is standard on types LI and LO which have no standard provision for bolting; however, one tapped hole will be furnished without charge upon request. Special: extra tapped holes in top plate for bolting.

Sound Damping: For maximum noise absorption, Korfund waffle-embossed synthetic rubber pads are included as standard as indicated above.

Protective Coatings: Vista Green enamel and electro-plated bolts and nuts are standard.



Ordering Designations

Interior Designations			TOP AND BOTTOM PLATE PADS
Type	Levelling	Snubbing	ALL ISOLATORS SUPPLIED WITH SOUND PAD CEMENTED TO BASE PLATE.
LK	External	Adjustable	LI & LO ISOLATOR TOP PLATES WITHOUT TAPPED HOLES FURNISHED WITH RUBBER SOUND PADS
LI	Internal	Adjustable	
LN	External	Non-Adjustable	
LO	Internal	Non-Adjustable	

Example LNA-45 = External levelling, non-adjustable snubbing. "A" size housing. #45 spring, rubber pad, and isolation washers for bolted arrangement.

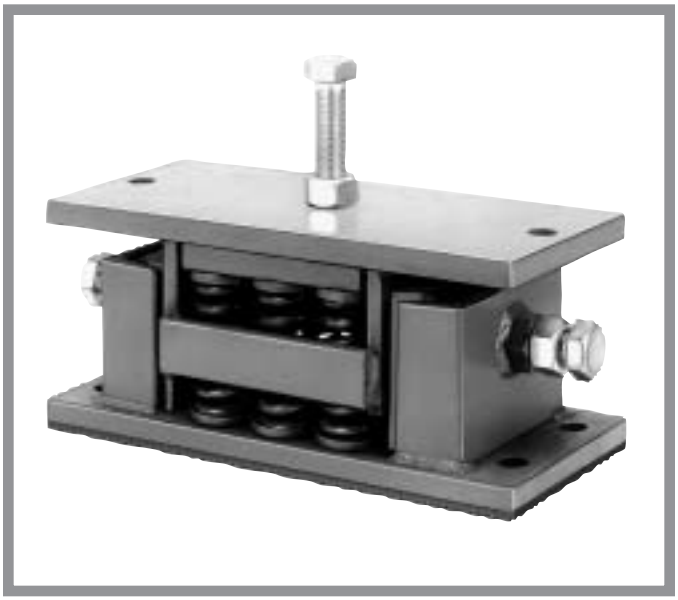
S Series Steel Spring Vibration Isolators

Features/Benefits

- Load Ranges from 100 to 125,000 lbs.
- All Directional
- Heavy-duty welded steel housing
- Reduces vibration, shock and structureborne noise transmission
- External and internal levelling adjustment types
- Fully adjustable snubbing

Applications

- Marine and stationary diesel generator sets
- Centrifugal filters
- Large presses, hammers
- Shaker screens, pulverizers



Advantages

Level Adjustment: Type SK external adjustment with single bolt through isolator top plate. Type SI internal adjustment bolt. Type SO is non-levelling.

Adjustment Bolt: Standard bolt will pass through 2" thick machine leg. Longer bolts available at extra cost.

Snubber Adjustment: Fully adjustable snubbing by means of end bolts is standard for all Series S Isolators.

Snubber Inserts: Elastomer impregnated cotton duck for heavy duty service is standard. Special materials for corrosive chemical atmospheres available at extra cost.

Springs: Oil-tempered, high carbon steel springs are standard. Special steels or coatings for corrosion resistance are available at extra cost.

Housing Materials: Heavy-duty all welded steel construction is standard.

Fastening To Floor: Base plate with bolt holes and elastomer sound pad with isolation washers for bolting to floor is standard.

Fastening To Machine: For external levelling, Type SK, a single adjusting bolt alone or in combination with two clearance holes for additional connecting bolts are standard. For internal levelling, Type SI, clearance holes standard. Tapped holes, number, size and location as specified by customer.

Limit Stops: For marine, mobile and other installations where overturning forces may be encountered, consult factory for information on Type KMS isolator with integral all-directional limit stops.

Protective Coatings: Housing painted Vista Green and zinc plated hardware standard. Consult factory for various coatings and isolator enclosures available for special applications.

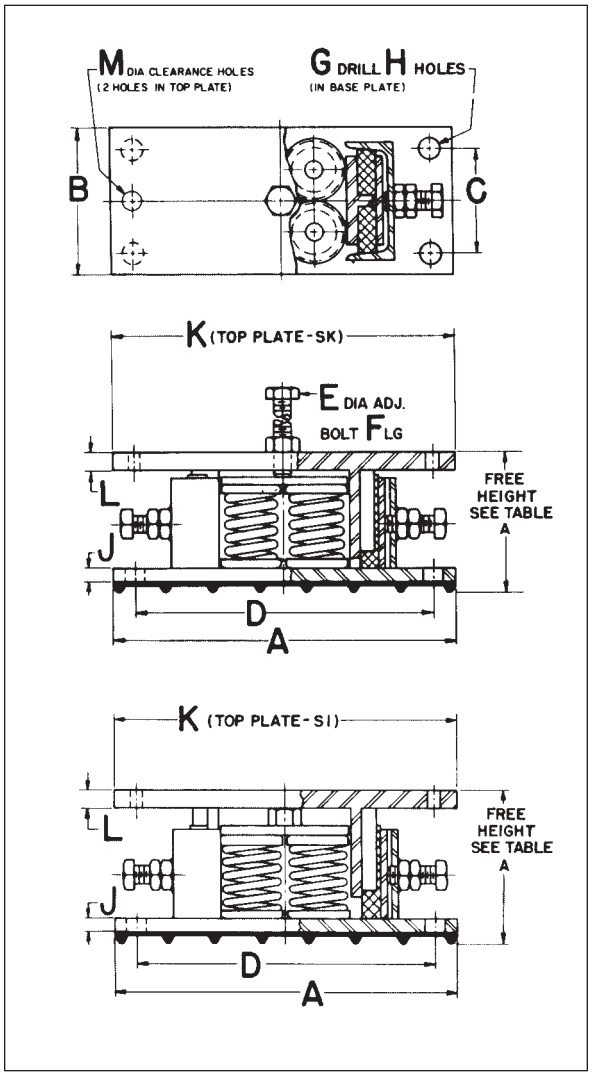
Maximum Loads - Type SK and Type SI Levelling Mounts
Housing sizes D through J

Isolator		Max. Capacity lbs.		Isolator Constant lbs./in.	Free Height Inches		Min Working Height inches
Housing Size	Spring No.(1)	Max. Steady	Max. Impact		SK	SI	
D 2 Springs	50	100		50	6"	6⅞"	5⅛"
	51	250		125			
	52	400		240			
	53	600		380			
	54	1000		690			
	55	1400		1120			
	56	2400		3300			
	45	650	520	880	5⅛"	5½"	
	46	900	720	1600			
	47	1200	960	2450			
	57	2200	1650	4260			
	68	2600	2450	5300		5⅞"	
E 4 Springs	50	200		100	6¼"	7⅛"	5¼"
	51	500		250			
	52	800		480			
	53	1200		760			
	54	2000		1380			
	55	2800		2240			
	56	4800		6600			
	45	1300	1040	1760	5¼"	5¾"	
	46	1800	1440	3200			
	47	2400	1920	4900			
	57	4400	3300	8520			
	68	5200	4900	10,600		6⅛"	
G 9 † Springs	51	1125		563	7"	8"	6¾"
	52	1800		1080			
	53	2700		1710			
	54	4500		3105			
	55	6300		5040			
	56	10,800		14,850			
	45	2925	2340	3960	63/4"	6¾"	
	46	4000	3200	7200			
	47	5400	4320	11,025			
	57	9900	7425	19,160			
	68	11,700	11,025	23,850		7"	
H	754	7640	5720	11540	7½"	8¾"	SKH 7"
	755	9540	7150	14,430			
	756	11,450	8580	17,320			
	757	13,370	10,000	20,200			
	758	15,300	11,460	23,090			SIH 8¼"
	759	17,200	12,900	25,970			
J	7512	22,900	17,160	34,640		8¾"	SIJ 8¼"

(1) First 2 digits indicate spring designation number. Additional digits, if any, indicate quantity of springs used. Different springs may be combined in an isolator for special conditions: for example, SKE-452-462 has two #45 and two #46 springs.
† 7 or 8 springs may be used for special job conditions

Ratings listed under "STEADY" are maxima for steady running applications (no impact). Ratings listed under "IMPACT" are maxima for impact applications on punch presses, hammers and pulverizers.

Minimum operating height = free height – spring deflection, or dimension shown in referenced column, whichever is greater.

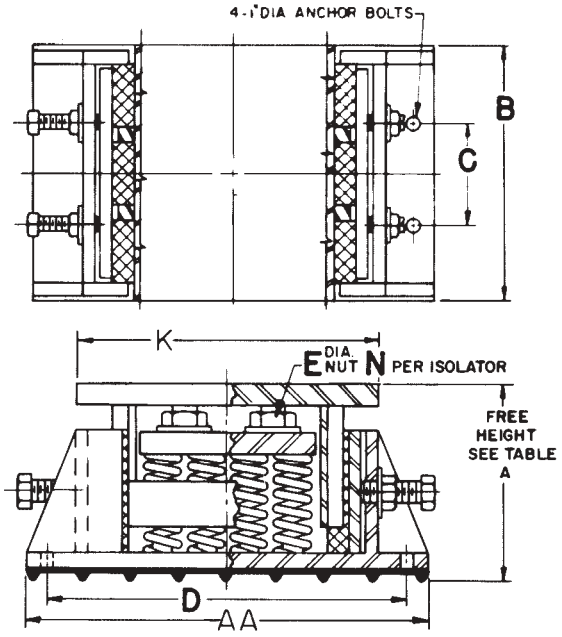


Dimensions

Housing Size	Dimensions (inches) A	B	C	D	E	F	G	H	J	K	L	M
D	9½	5	-	8¼	⅝	6	⅝	2	⅜	9½	½	⅝
E	11⅜	5	-	10⅜	¾	6	¾	2	⅜	11⅜	⅝	¾
G	16	7	3½	14	1	6	¾	4	½	16	¾	⅞
H	18	7	3½	16	1¼	6	⅞	4	⅝	18	1	1⅛
J	20¼	7	3½	18¼	2-1	-	⅞	4	⅝	20¼	1	1⅛

Maximum Loads - Type SI High Capacity Levelling Mounts Housing Sizes P through W

Isolator	Max. Capacity In Pounds		Isolator Constant lbs./in.	Free Height	Min. Working Height
	Max. Steady	Max. Impact			
SIP-7522	42,000	31,000	64,000	11½"	10¾"
SIS-7536	68,000	51,000	104,000	11"	10¼"
SIT-7544	84,000	63,000	128,000	11¾"	11"
SIV-7554	103,000	77,000	157,000	11"	10¼"
SIW-7566	125,000	94,000	191,000	12"	11¼"

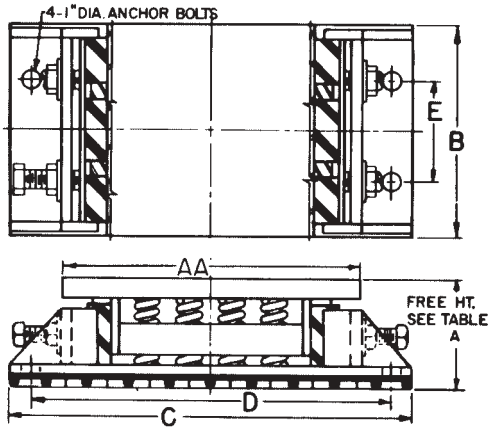


Dimensions

Housing Size	Dimensions (inches)						
	AA	B	C	D	E	N	K
P	24½	13	7	21¼	2¼	1	18½
S	36	13	7	32½	1¾	2	30
T	38	14	7½	34½	2¼	2	32
V	49½	14	7½	46	1¾	3	42
W	51½	15	8	48	2¼	3	44

Maximum Loads - Type SO High Capacity Non-Levelling Mounts. Housing Sizes P through W

Isolator	Max. Capacity In Pounds		Isolator Constant lbs./in.	Free Height	Min. Working Height
	Max. Steady	Max. Impact			
SOP-7520	38,000	29,000	58,000	6½"	6"
SOS-7536	68,000	51,000	104,000	7¼"	6¾"
SOT-7542	80,000	60,000	122,000	7½"	7"
SOV-7556	106,000	80,000	162,000	7½"	7"
SOW-7564	122,000	92,000	186,000	7¾"	7¼"



Dimensions

Housing Size	Dimensions (inches)				
	AA	B	C	D	E
P	15	13	21½	18½	7
S	20	16	27½	24	10
T	22	16	29½	26	10
V	26	19	33½	30	12
W	26	21	33½	30	13

Typical Installation Configurations

The Series S Isolator is normally fastened to the floor, foundation, substructure or deck by bolting through the holes provided in the base plate. It can be fastened to the equipment by the various arrangements shown in Figures 1 through 6. *Korfund Dynamics reserves the right to approve the fastening method for all applications.*

EXTERNAL ADJUSTING (TYPE SK) AND INTERNAL ADJUSTING (TYPE S), HOUSING SIZES THROUGH H.

1. The standard method of fastening the Type SK isolator to the machine is by using the external adjusting bolt as shown in Fig.1.
2. Where additional fastening is necessary, i.e., large horizontal forces, the external adjusting bolt can be used in combination with bolts through the standard clearance holes in isolator top plate. Fig.2.

The standard method of fastening the internal Type SI isolator housing sizes D through J is by bolting through standard clearance holes in the isolator top plate.

TYPE SI (INTERNAL ADJUSTING) AND TYPE SO (NON-LEVELLING)

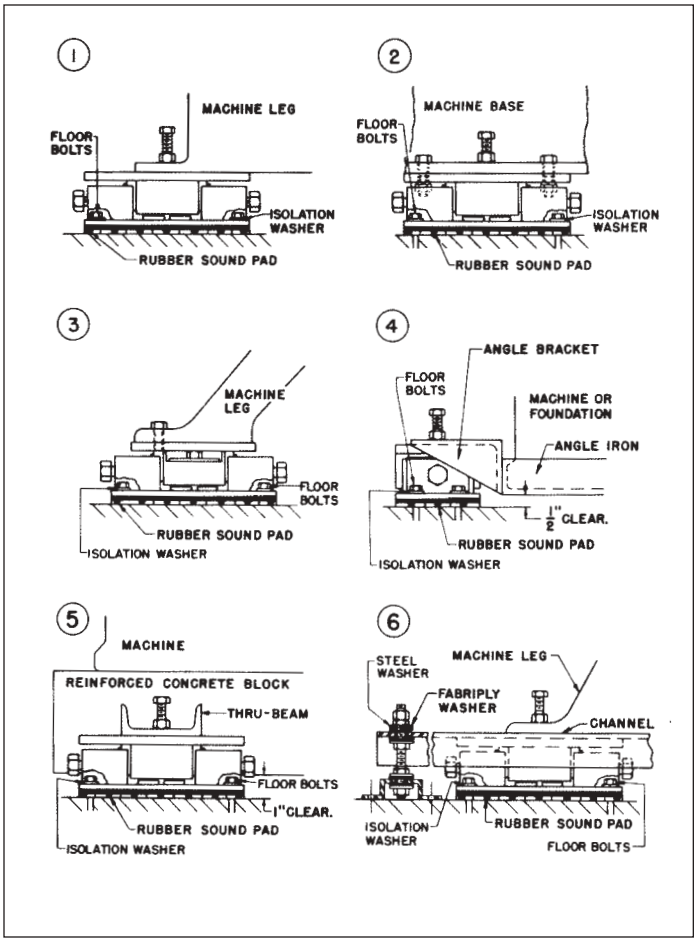
3. Machines with Bolt Holes Off Center. Where equipment cannot be accommodated by standard clearance holes in the Type SI isolator, an offset tapped hole will be furnished in the SI isolator top plate in housing sizes D through J. Fig.3.

The Type SI and SO housing sizes P through W are provided with tapped holes in the top plate as specified by the customer.

4. Height Saving Arrangement. If increase in height of isolated machine is objectionable, the machine may be supported on angle or channel cradles running between brackets (gusset plates may be used to strengthen brackets) or the brackets can be bolted or welded directly to the machine base. Fig.4.

5. Fastening to Concrete Equipment Base. With thin concrete blocks theisolators may be placed under the block with extra long adjusting bolts (extra charge) passing through cast-iron pipe sleeves. For thicker blocks the isolators can be attached to the ends of cast-in beams running through the entire block. Fig.5.

6. Limit Stops. Where large external forces, i.e., marine or mobile installations, earthquake applications or where large overturning forces are present, limit stops must be used. If limit stops cannot easily be accommodated, consult Korfund for information on the Type KMS all welded steel, all directional, steel spring isolator with built-in limit stops.



KMS Series Steel Spring Vibration Isolators

Features/Benefits

- Load Ranges from 50 to 8,000 lbs.
- Heavy duty welded steel housings
- All directional limit stops
- Reduces Vibration, shock and structureborne noise transmission

Construction/Material Data

- Oil-tempered, high carbon steel springs, powder coated for corrosion resistance
- Horizontal limit stops in molded polyurethane
- Vertical limit stops, neoprene impregnated cotton duck
- Heavy duty all welded construction
- Zinc plated hardware and zinc chromate primed housing and metal parts

Applications

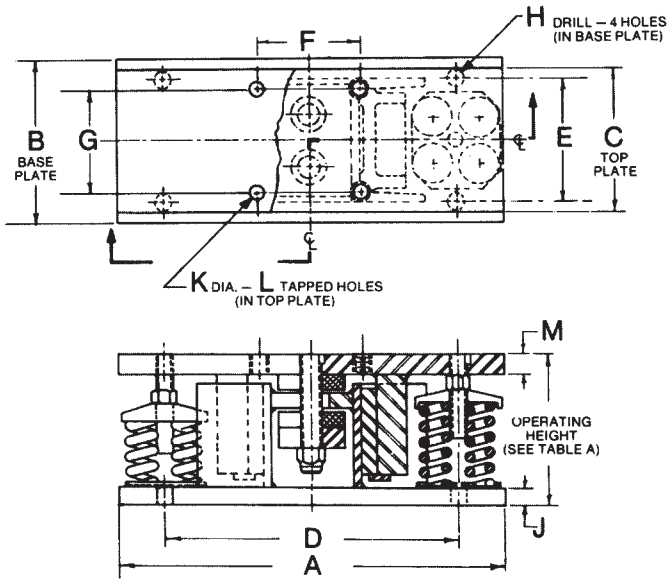
- Marine and mobile installations

Maximum Loads - Housing Sizes D, E, G

Isolator Housing Size	Isolator Spring No.	Max. Capacity (lbs.)	Isolator Constant (lbs./in.)	Operating Height (in.) * *
D 2 Springs	50	80	50	6⅛
	51	200	125	
	52	320	240	
	53	480	380	
	54	800	690	
	55	1120	1120	
	56	1920	3300	
E 4 Springs	50	160	100	7
	51	400	250	
	52	640	480	
	53	960	760	
	54	1600	1380	
	55	2240	2240	
	56	3840	6600	
G 8 Springs	50	320	200	7¾
	51	800	500	
	52	1280	960	
	53	1920	1520	
	54	3200	2760	
	55	4480	4480	
	56	7680	13200	

**Installed height 1/4" more than operating height

Static spring deflection in inches = load ÷ isolator constant



NOTE: FASTENING TO SUPPORT STRUCTURE & EQUIPMENT IS REQUIRED. Anchor bolt holes in base plate and tapped holes in top plate are provided

Housing Size	Dimensions (inches)											
	A	B	C	D	E	F	G	H	J	K	L	M
D	12	5	4	9¾	3½	3½	–	9/16	⅝	¾*	2	¾
E	14	7	6	7	5¾	4	–	11/16	⅝	⅞*	2	⅞
G	18¾	8	7	14¼	6	5	5	13/16	⅞	⅞*	4	1

*STANDARD UNC THREAD

Cable Isolators Helical/Circular Arch

Features/Benefits

- Rugged, metal construction
- Low frequency, highly damped vibration isolation
- Excellent shock attenuation
- Wide temperature range, –200°F to +650°F
- Fail-safe construction
- Maintenance-free

Applications

- Airborne avionics and equipment
- Shipboard/Marine equipment and electronics
- Mobile equipment and electronics
- Computer equipment and disc drives
- Blowers and Fans
- Motors and Pumps
- Medical Equipment
- Motor Generators and Compressors
- HVAC Equipment

Helical (CB) Series
(LOAD RANGE TO 5000 LBS.)

These all-metal mounts are truly unique, adapted to a spectrum of physical and engineering requirements so broad that it includes almost every isolation need. They have put to rest the notion that a single mount cannot handle both shock and vibration.

Aeroflex helical isolators combine a very wide load range with 3-plane all axis isolation that permits their use in any attitude except tension. Their dynamic displacement attenuates heavy shocks, while their inherent damping enables them to store and dissipate large amounts of low and high frequency vibration.

For details of the full range of the Helical Series, ask to see the Aeroflex Helical Isolator brochure.

Circular Arch (CCA) Series
(LOAD RANGE TO 240 LBS.)

Wire rope isolators have protected sensitive equipment in severe environments for over twenty years.
Now, Korfund has developed this revolutionary type of wire rope cable isolators - the CCA Circular Arch Series.

The CCA Series isolator incorporates captive, flexible stainless steel wire rope elements with zinc plated steel attachment housings for easy installation and long life. The fully compliant wire rope elements provide a high degree of damping with predictable shock and vibration isolation performance characteristics over an unusually wide temperature range. They are available in numerous sizes and configurations to suit many applications.

Ask to see Korfund's comprehensive CCA Series Circular Arch Isolator Brochure - Bulletin CCA/94

Seismic Mounts & Restraints

Features/Benefits

- Static Load Ranges from 60 to 13,200 lbs.
- Static deflections to 2 inches
- All mounts incorporate neoprene cushions.

Applications

- HVAC Equipment
- Fans, Pumps
- Chillers, Cooling Towers
- Motor Generators
- Duct and Equipment

AEQM

SR

AWMR

AWRS

Type AEQM Spring-Flex Mountings

Designed for seismic and restrained applications. These mountings are capable of withstanding accelerated forces in all directions and providing static deflections up to 2" and loads to 2500 lbs. They also incorporate an all-directional neoprene grommet and an adjustable upward rebound plate.

Type SR Seismic Restraints

Fabricated of welded steel components incorporating thick neoprene elastomer pads molded to Bridge Bearing quality specifications, the design of these restraints allows for the removal and replacement of the neoprene elements. For loads from 250 to 12,000 lbs.

Type AWMR Restrained Spring-Flex Mountings

The design incorporates a rugged welded steel housing with vertical and horizontal limit stops able to withstand accelerated forces in all directions. Loads to 10,000 pounds and static deflections to 2". They are particularly recommended for equipment with differing installed and operating loads such as cooling towers and chillers or equipment subjected to severe wind loads.

Type AWRS Spring-Flex Mountings

The design utilizes our open spring isolators within a welded steel housing. The housing is designed to limit vertical movement when used under equipment with large variations in mass such as chillers, or to prevent excessive motion of outdoor equipment, such as cooling towers, due to high winds. The AWRS design also acts as a secure blocking during equipment installation and offers full leveling capability. These mountings are available with up to 5 inches of static deflection and can be designed to support virtually any load.

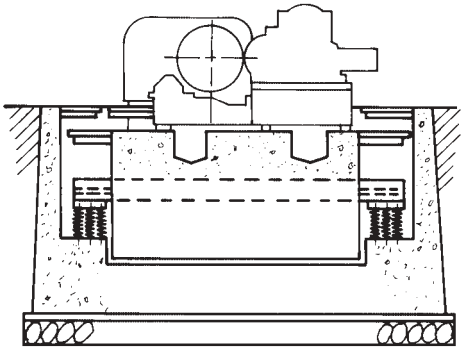
For more comprehensive information on Korfund's Seismic Mounts and Restraints, consult factory.

Special Products
For Forging Hammer & Roll Grinder Isolation

Series UN Heavy-Duty Spring Isolator

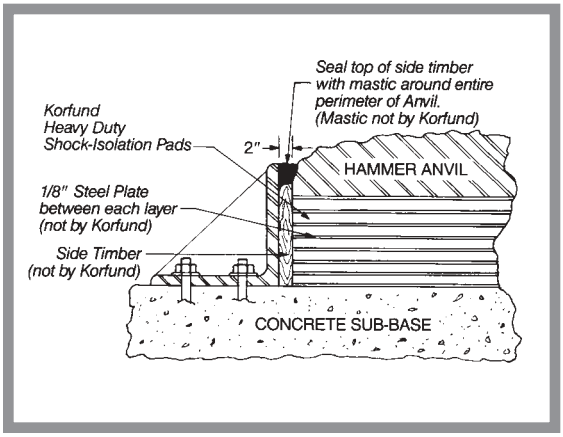
A heavy duty spring isolator most frequently used to support machines on deep concrete foundations such as forging hammers and roll grinders. The structural members cast through the foundation are supported by the UN isolator, and machine and foundation is levelled through adjustment of the isolator. Separate snubbing and damping controls are available. Load range to 35,000 lbs. per isolator and deflections to 1½" result in excellent shock and vibration attenuation.

Installation Configuration



Heavy-Duty Shock Isolation Pad System

Korfund HDSIP is an engineered system. While not as efficient as the Korfund Spring Isolated Foundation System, it is engineered to eliminate up to 75% of the shock formerly transmitted through the timber-pad combination.
The Korfund HDSIP System can be installed in existing hammer foundations or on newly constructed conventional foundations.



KORFUND DYNAMICS
A Unit of VMC, an Aeroflex, Inc., Company
113 MAIN ST., BOX 270, BLOOMINGDALE, NJ 07403
(973) 838-1780 • Toll Free 1-800-LOW-VIBE • Fax (973) 492-8430

Completed By _____

Date _____

SHOCK/VIBRATION ISOLATION APPLICATION SHEET

The following data will help us to determine your Korfund Isolator needs to meet your shock and vibration requirements. If a drawing cannot be included, use space provided on reverse side for sketches.

Company Name _____

Address _____

_____

_____

Contact Name/Position _____

Telephone _____

Fax No. _____

TECHNICAL REQUIREMENTS

Equipment Type/Description _____

Equipment Weight _____ lbs.

Operating Conditions (Stationary, Mobile, Marine, etc.) _____

Shock/Vibration Levels _____

Temperature Range High of _____ °F Low of _____ °F

Special Environmental Conditions (Solvents, Fuels, Ozone, etc.)

_____

PROTOTYPE/PRODUCTION REQUIREMENTS

Prototype Quantity _____ Timing _____

Production Forecast _____ Timing _____

ENGINE/DRIVETRAIN APPLICATIONS

Engine/Transmission Type and Manuf. _____

Number of Cylinders _____

Total Wet Weight _____

Torque/Belt Loads _____

Operating Speed Range _____ to _____ RPM

Accessories _____

(Use additional sheets for sketch and remarks)

SYSTEM GEOMETRY Include Preferred Mounting Locations and CG Location

SKETCH

REMARKS

KORFUND DYNAMICS

NOTES

IMPORTANT NOTES and INFORMATION

Technical Seminars

Korfund offers on-site technical seminars for our customers. These are typically 1½ hour presentations covering shock and vibration isolation theory, product applications, and question and answer sessions. Seminars can be tailored to a customer's specific needs.

Additional Product Brochures

In addition to this product catalog, Korfund has available the following product brochures:

- Aeroflex Wire Rope Isolator Brochure
- Korfund Circular Arch (CCA Series) Isolator Brochure – *Bulletin #CCA/94*
- Vibration Control Products for HVAC Equipment – *Bulletin #VAC-14-99*
- Isolator Selection Guides for Engine Generator Sets, including:
  - Onan
  - Caterpillar
  - Kohler
  - Spectrum

DRAWINGS and SPECIFICATIONS

Product Dimensions and Specifications contained in this catalog are subject to change without notice.

If specific product information is required, up-to-date revision drawings can be furnished by Korfund.

A Unit of VMC, an Aeroflex, Inc., Company

113 Main Street, P.O.Box 270, Bloomingdale, New Jersey 07403
Tel: 973/838-1780 Toll Free: 1-800-LOW-VIBE Fax: 973/492-8430

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