



SHOCK AND VIBRATION ISOLATION CATALOG



GREENE RUBBER COMPANY
SOLUTIONS FOR NOISE, VIBRATION AND HARSHNESS



TABLE OF CONTENTS

This catalog contains a series of standard shock and vibration isolators for various applications. It is meant as a guide to aid in the selection of an isolator. Please consult with a technical engineer before placing an order to ensure the isolator is recommended for the particular application. Custom options are also available.

STANDARD VIBRATION ISOLATION SOLUTIONS

ALL ATTITUDE MOUNTS VIB3705 SERIES, VIB3706 SERIES, VIB3707 SERIES	3-6
AVIONICS MOUNTS VIB3124 SERIES, VIB3125 SERIES, VIB3126 SERIES, VIB3127 SERIES, VIB3128 SERIES, VIB3129 SERIES	7-14
CUP MOUNTS VIB1701 SERIES, VIB1702 SERIES	15-17
SPRING MOUNTS “L” TYPE VIB3719 SERIES, VIB3725 SERIES	18-20
SPRING MOUNTS “H” TYPE VIB3704 SERIES, VIB726 SERIES	21-23
HIGH DEFLECTION MOUNTS VIB801 SERIES, VIB803 SERIES, VIB804 SERIES	24-26
HOLDER MOUNTS VIB3710 SERIES, VIB3711 SERIES, VIB3720 SERIES, VIB3721 SERIES, VIB3722 SERIES, VIB3723 SERIES	27-30
LOW PROFILE/ALL ATTITUDE MOUNTS VIB101 SERIES, VIB102 SERIES	31-33
LOW PROFILE MOUNTS VIB3203 SERIES, VIB3204 SERIES	34-36
LOW PROFILE/HIGH DEFLECTION MOUNTS VIB2805 SERIES, VIB2806 SERIES	37-39
BUBBLE MOUNTS VIB3304 SERIES, VIB3305 SERIES, VIB3306 SERIES, VIB3307 SERIES	40-44
RING & BUSHING MOUNTS (ALL ELASTOMER) VIB1401 SERIES, VIB1402 SERIES, VIB1403 SERIES, VIB1404 SERIES	45-49
RING & BUSHING MOUNTS VIB2405 SERIES, VIB2406 SERIES, VIB2407 SERIES, VIB2408 SERIES, VIB2409 SERIES	50-56
BONDED TUBE MOUNTS VIB2107 SERIES, VIB2108 SERIES, VIB2110 SERIES, VIB2112 SERIES	57-62
HIGH RATIO MOUNTS VIB2109 SERIES, VIB2111 SERIES, VIB2119 SERIES	63-67
VOIDED RING & BUSHING VIB2417 SERIES , VIB2419 SERIES, VIB2420 SERIES, VIB2421 SERIES	68-73

SPECIALTY MOUNTS AND MATERIALS

EES MACHINERY MOUNTS 6E100, 6E150, 7E450, 6E900, 6E2000	74-79
G SERIES PIPE HANGER MOUNTS 8G100, 8G150, 7G450, 6G900, 6G2000	80-85
MARE ISLAND MOUNTS 10M50, 11M15, 11M25	86-89
DISTRIBUTED ISOLATION MATERIAL P20001	90

APPLICATION WORKSHEETS

GENERAL APPLICATIONS	91
ENGINE MOUNT APPLICATIONS	92
MARINE ENGINE MOUNT APPLICATIONS	93

ALL-ATTITUDE MOUNTS

All-attitude mounts are general purpose isolators for applications on aircraft, ground vehicles or racking systems. Equipment can be mounted in any orientation (attitude) with equal performance. All attitude isolators offer high frequency shock and vibration protection.

Features:

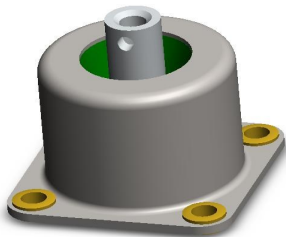
- Compact, lightweight design
- 1:1 Axial to Radial spring rate
- All-attitude design
- Isolates under sustained loading up to 5G
- Efficiently isolates vibration in all directions
- Survives 30G 11ms 1/2 sine shock input at rated load

All-attitude mounts are available in three sizes:

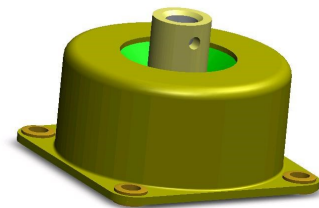
- 3706 size: 5 load ratings from 1 to 7 lb
- 3705 size: 3 load ratings from 10 to 20 lb
- 3707 size: 3 load ratings from 35 to 80 lb

Applicable Military Specifications:

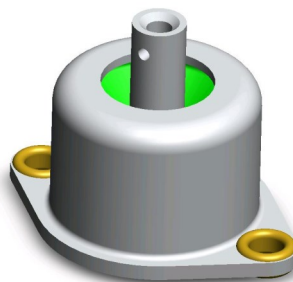
- MIL-E-5400
- MIL-STD-810



VIB3705



VIB3707



VIB3706

ALL-ATTITUDE MOUNTS VIB3705 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +300 F

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 10 – 20 lb

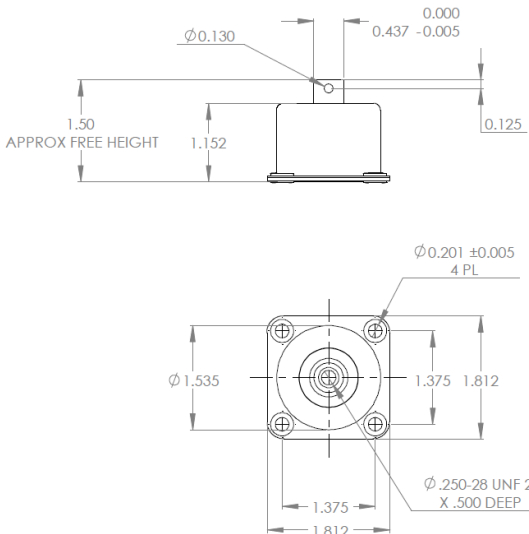
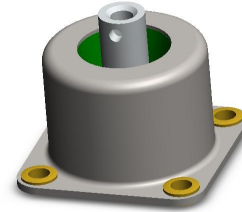
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 2.8 oz.

Materials: Cup and Base Plate: 302 or 304 Stainless Steel,
Passivated per ASTM A967

Core: Aluminum alloy 6061-T6, chem. Film per
MIL-C-5541 Class 1A

Eyelets: Brass, Nickel plated per ASTM B689



Performance Characteristics

Part Number	Maximum Static Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lb/in	N/mm
VIB3705-1	10	22	494	89	494	89
VIB3705-2	15		741	133	741	133
VIB3705-3	20		988	177	988	177

*Fn at max rated load and .036 inch DA input

To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

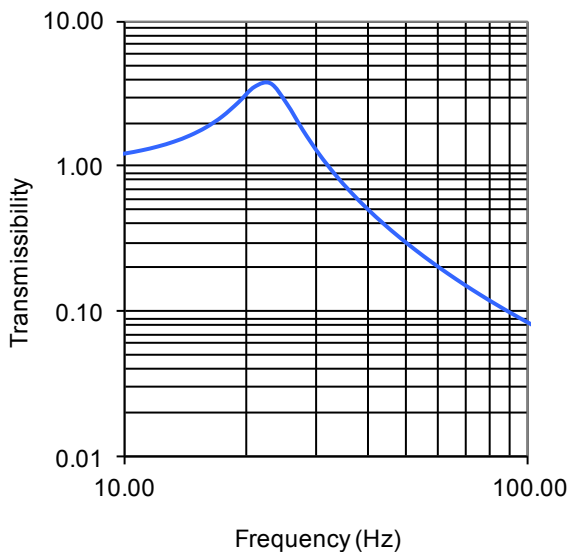
F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

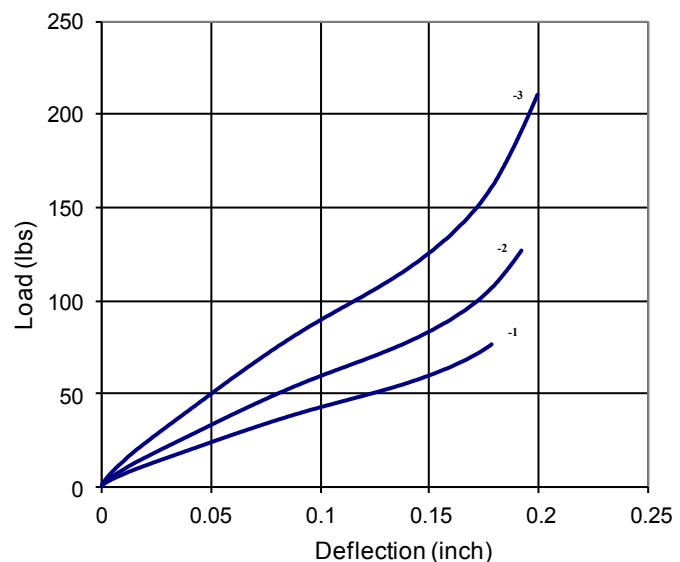
P_r : Rated load

P_a : Actual load

Transmissibility vs. Frequency



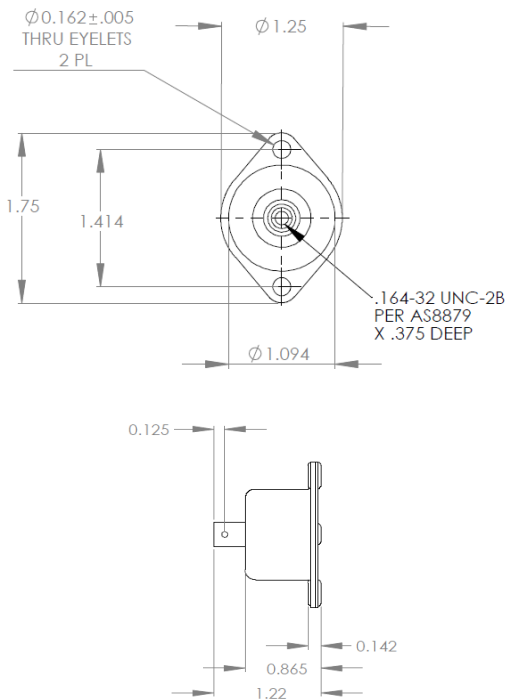
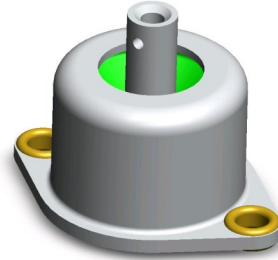
Typical Load vs. Deflection



ALL-ATTITUDE MOUNTS VIB3706 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +300 F
 Maximum Transmissibility at Resonance: 4.0
 Load Capacity: 1 – 5 lb
 Axial-Radial Stiffness Ratio: 1:1
 Part Weight: 1.1 oz.
 Materials: Cup and Base Plate: Aluminum alloy 5052-H32
 Core: Aluminum alloy 6061-T6, chem. Film per MIL-C-5541 Class 1A
 Eyelets: Brass, Nickel plated per ASTM B689



Performance Characteristics

Part Number	Maximum Static Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lb/in	N/mm
VIB3706-1	1	23	54	9.5	54	9.5
VIB3706-2	2		108	19	108	19
VIB3706-3	3		162	28	162	28
VIB3706-5	5		270	47	270	47
VIB3706-7	7		378	67	378	67

* F_n at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

Where:

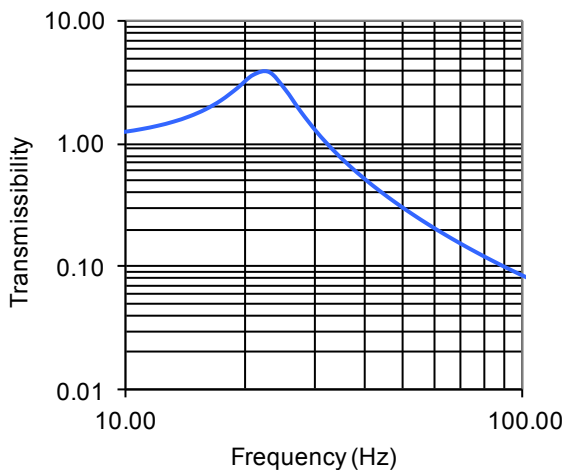
F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

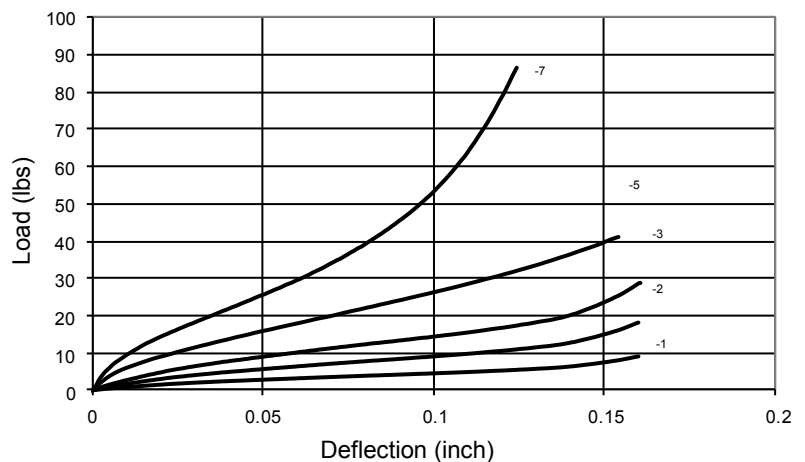
P_r : Rated load

P_a : Actual load

Transmissibility vs. Frequency



Typical Load vs. Deflection



ALL-ATTITUDE MOUNTS VIB3707 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +300 F

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 10 – 20 lb

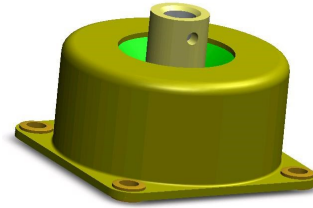
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 2.8 oz.

Materials: Cup and Base Plate: Cold Rolled Steel, Zinc Plated per ASTM B633

Core: Aluminum alloy 6061-T6, chem. Film per MIL-C-5541 Class 1A

Eyelets: Brass, Nickel plated per ASTM B689



Performance Characteristics

Part Number	Maximum Static Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lb/in	N/mm
VIB3707-1	35	17	1032	181	1032	181
VIB3707-2	50		1475	259	1475	259
VIB3707-3	80		2360	414	2360	414

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

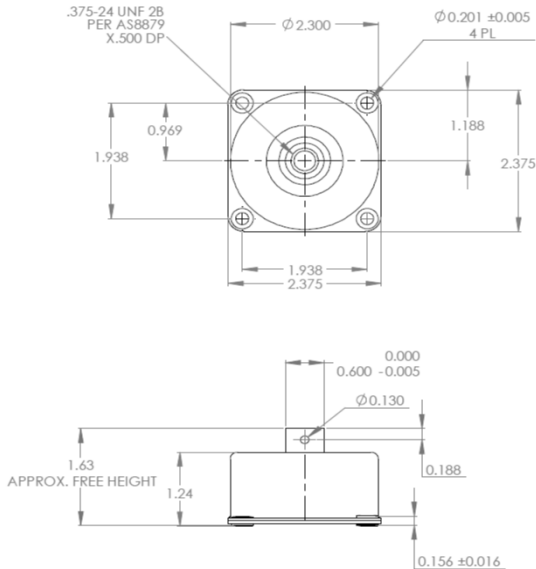
Where:

F_n : Natural Frequency at actual load (Hz)

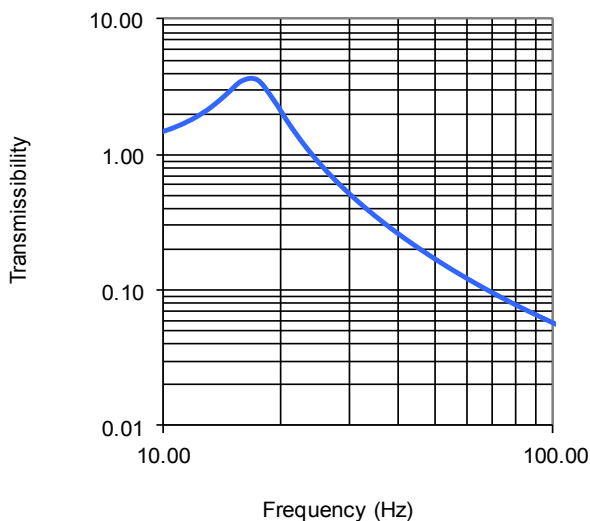
F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

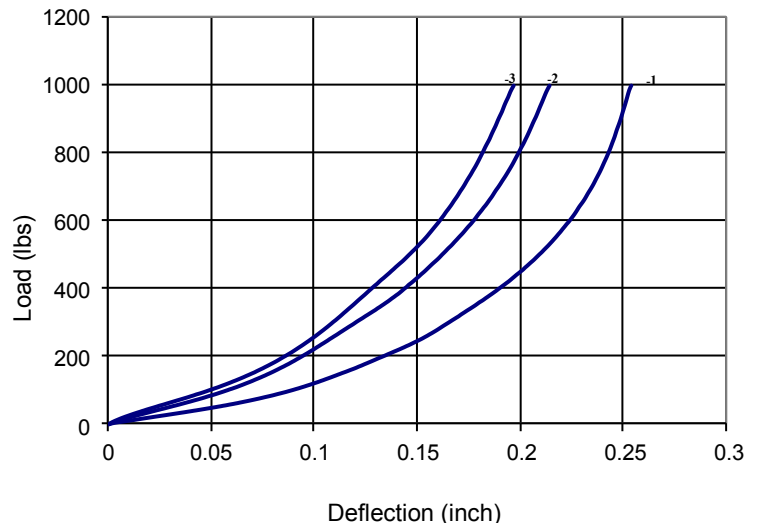
P_a : Actual load



Transmissibility vs. Frequency



Typical Load vs. Deflection



AVIONICS MOUNTS Low Profile, All-Axis Vibration Isolators

Avionics mounts are compact, lightweight vibration isolators that provide excellent vibration protection in all axes. Specially designed for the aviation industry, avionics mounts are ideally suited to mounting sensitive electronics in challenging dynamic applications. They are available in a wide variety of spring rates to produce natural frequencies of 20-40 Hz to accommodate many dynamic environments.

Avionics mounts are constructed using a silicone elastomer blend appropriate for operating temperatures of -65 to +300 °F. The silicone elastomer blend used produces excellent damping characteristics resulting in a maximum amplification at resonance of 4.0 for all sizes under typical environmental conditions. They are rugged and are capable of withstanding 15G 11 ms half-sine shock inputs without damage and are available in 6 sizes with load ratings from 4 to 20 lbs.

Features:

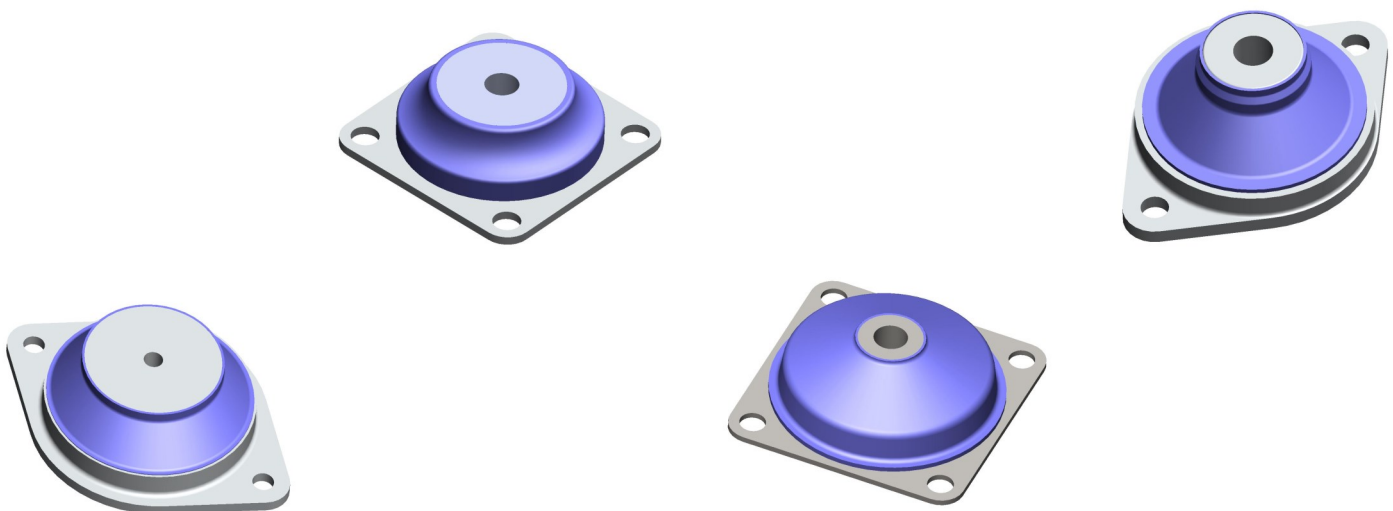
- Lightweight, low-profile design
- Efficiently isolates vibration in all directions
- 1:1 Axial to Radial spring rate

Avionics mounts are available in six sizes:

- VIB3124: load rating = 4.0 lb
- VIB3127: load rating = 4.5 lb
- VIB3126: load rating = 6.0 lb
- VIB3125: load rating = 10.0 lb
- VIB3128: load rating = 15.0 lb
- VIB3129: load rating = 20.0 lb

Applicable Military Specifications:

- MIL-STD-810



AVIONICS MOUNTS VIB3122 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F (silicone)

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 3.5 lb

Axial-Radial Stiffness Ratio: 1:1

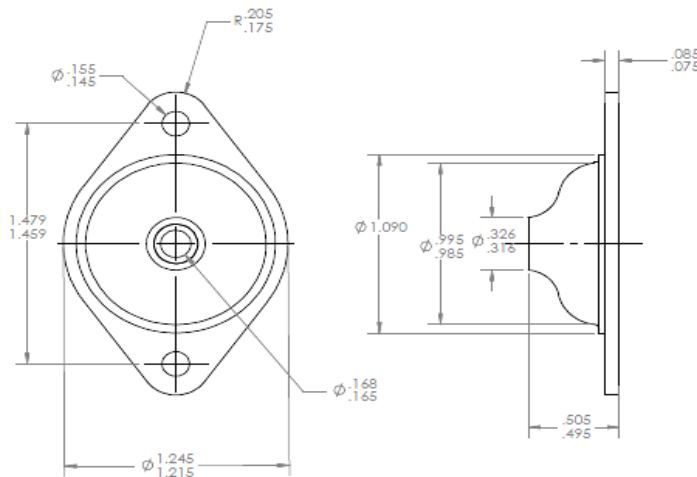
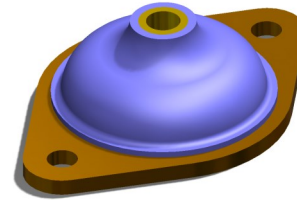
Part Weight: 0.27 oz.

Materials & Finish:

Metal components: AL alloy, Conversion coated per

MIL-C-5541 class 1A

Elastomer: Silicone



Performance Characteristics

Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
VIB3122-2	14	71	12	71	12
VIB3122-3	15	84	15	84	15
VIB3122-4	17	98	17	98	17
VIB3122-5	18	114	20	114	20
VIB3122-6	19	131	23	131	23
VIB3122-7	20	150	26	150	26
VIB3122-8	22	173	30	173	30
VIB3122-9	23	197	35	197	35
VIB3122-10	25	226	40	226	40

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

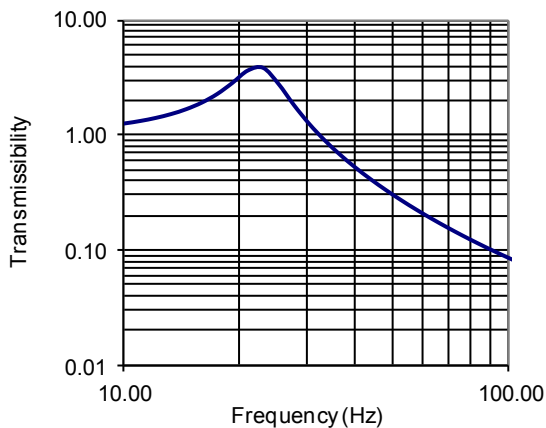
F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

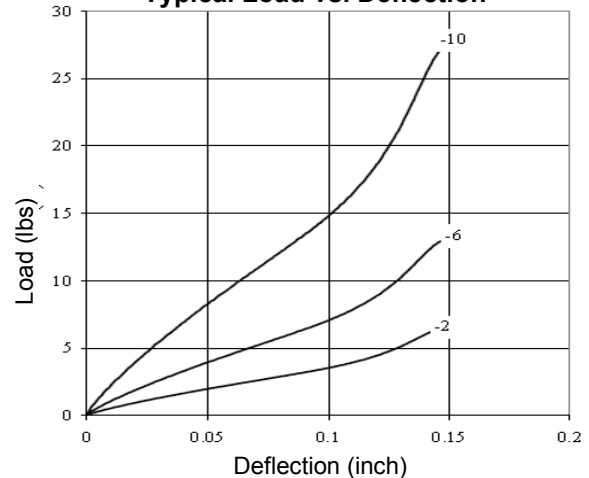
P_r : Rated load

P_a : Actual load

Transmissibility vs. Frequency



Typical Load vs. Deflection



AVIONICS MOUNTS VIB3124 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F (silicone)

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 4.0 lb

Axial-Radial Stiffness Ratio: 1:1

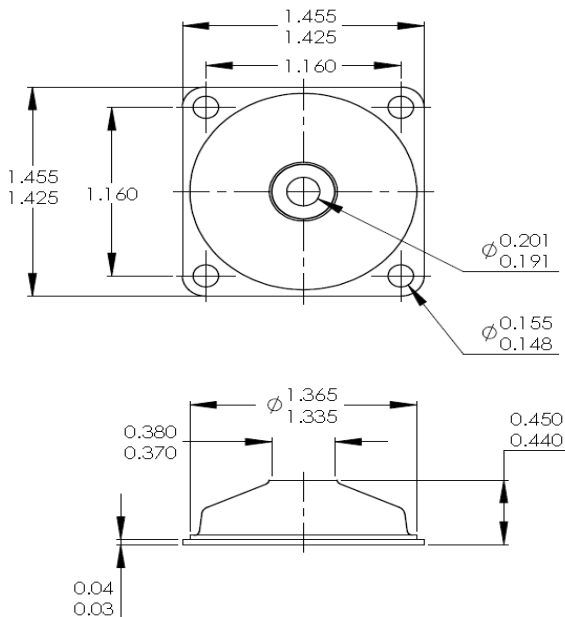
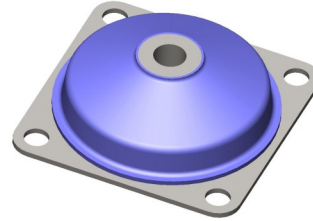
Part Weight: 0.46 oz.

Materials & Finish:

Core: 300 series CRES, Passivated per ASTM A967

Plate: 300 series CRES, Passivated per ASTM A967

Elastomer: Silicone



Performance Characteristics

Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
		Hz	lb/in N/mm	lb/in N/mm	
VIB3124-2	13	71	12	79	14
VIB3124-3	14	84	15	93	16
VIB3124-4	15	98	17	109	19
VIB3124-5	17	114	20	127	22
VIB3124-6	18	131	23	146	25
VIB3124-7	19	150	26	167	29
VIB3124-8	21	173	30	192	34
VIB3124-9	22	197	35	219	38
VIB3124-10	23	226	40	251	44

*Fn at max rated load and .036 inch DA input

To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

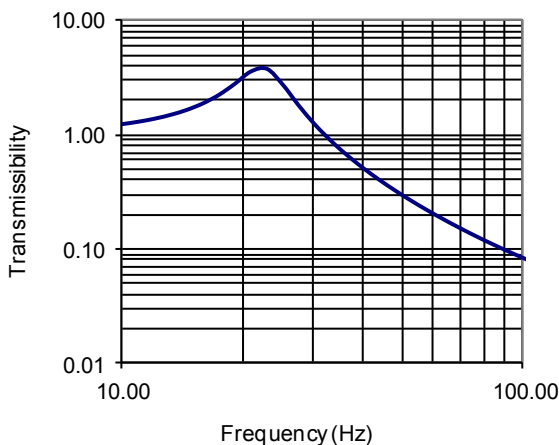
F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

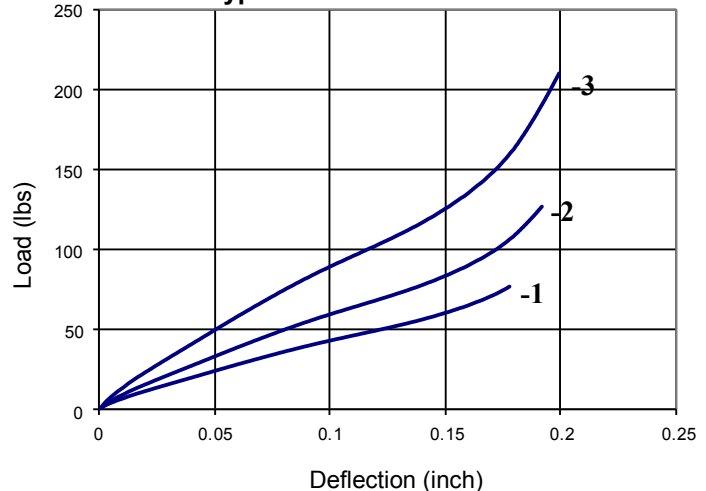
P_r : Rated load

P_a : Actual load

Transmissibility vs. Frequency



Typical Load vs. Deflection



AVIONICS MOUNTS VIB3125 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F (silicone)

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 10.0 lb

Axial-Radial Stiffness Ratio: 1:1

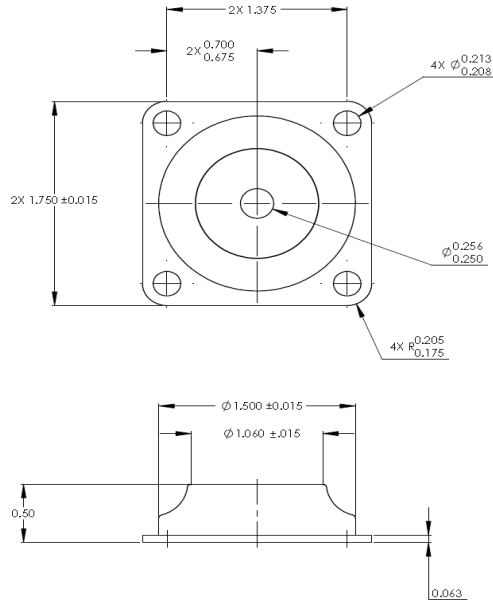
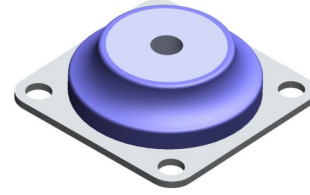
Part Weight: 0.82 oz.

Materials & Finish:

Core: Al 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A

Plate: AL 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A

Elastomer: Silicone



Performance Characteristics

Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
VIB3125-7	24	581	102	528	93
VIB3125-8	26	681	119	619	108
VIB3125-9	28	738	131	725	127
VIB3125-10	30	932	163	847	148
VIB3125-11	32	1065	187	965	170
VIB3125-12	35	1221	214	1110	194
VIB3125-13	37	1405	248	1277	224
VIB3125-14	40	1611	282	1465	256
VIB3124-15	43	1844	323	1676	294

*F_n at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

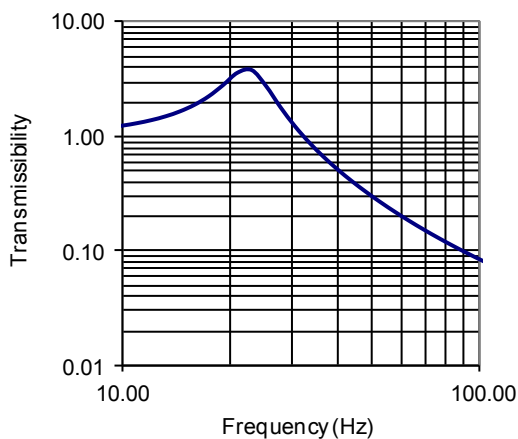
F_n: Natural Frequency at actual load (Hz)

F_{nn}: Nominal Natural Frequency (Hz)

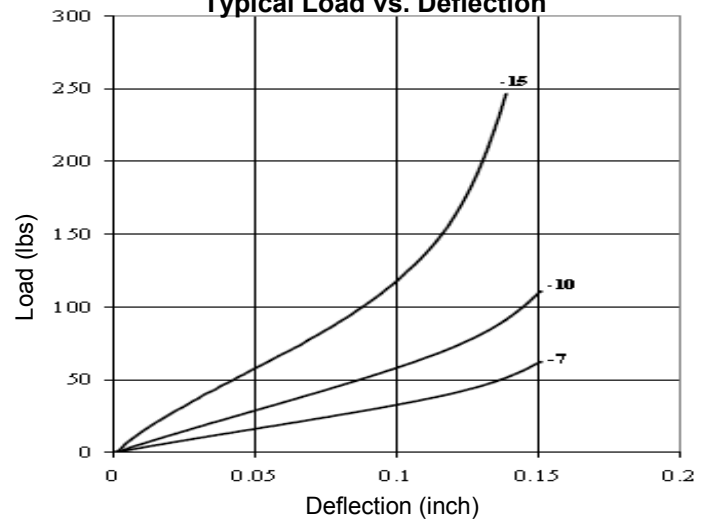
P_r: Rated load

P_a: Actual load

Transmissibility vs. Frequency



Typical Load vs. Deflection



AVIONICS MOUNTS VIB3126 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F (silicone)

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 6.0 lb

Axial-Radial Stiffness Ratio: 1:1

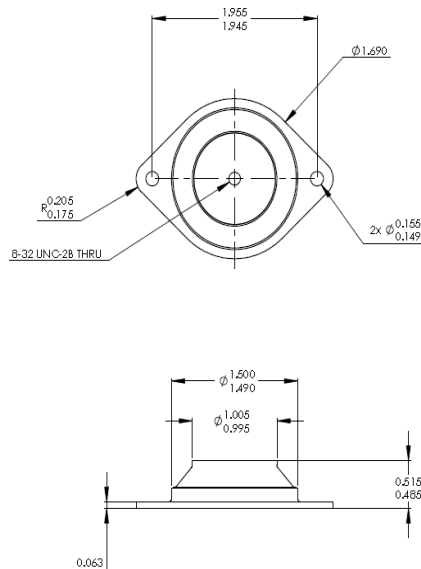
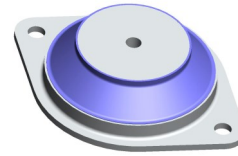
Part Weight: 0.67 oz.

Materials & Finish:

Core: Al 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A

Plate: AL 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A

Elastomer: Silicone

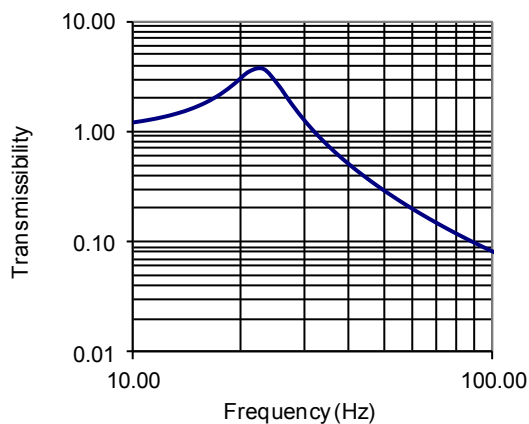


Performance Characteristics

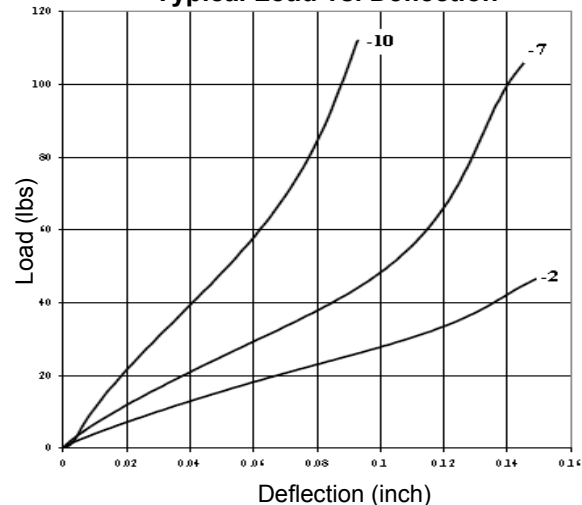
Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
VIB3126-2	24	353	62	272	48
VIB3126-3	26	414	73	318	56
VIB3126-4	28	485	85	373	65
VIB3126-5	31	566	99	436	76
VIB3126-6	33	647	113	498	87
VIB3126-7	35	743	130	572	100
VIB3126-8	37	854	150	657	115
VIB3126-9	40	979	171	753	132
VIB3126-10	43	1121	196	862	151

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
F_n: Natural Frequency at actual load (Hz)
F_{nn}: Nominal Natural Frequency (Hz)
P_r: Rated load
P_a: Actual load

Transmissibility vs. Frequency



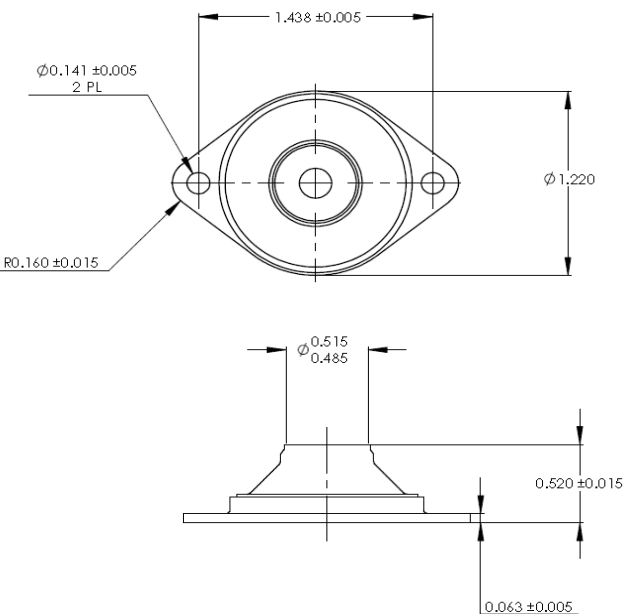
Typical Load vs. Deflection



AVIONICS MOUNTS VIB3127 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F (silicone)
Maximum Transmissibility at Resonance: 4.0
Load Capacity: 4.5 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: 0.34 oz.
Materials & Finish:
Core: Al 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A
Plate: AL 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A
Elastomer: Silicone

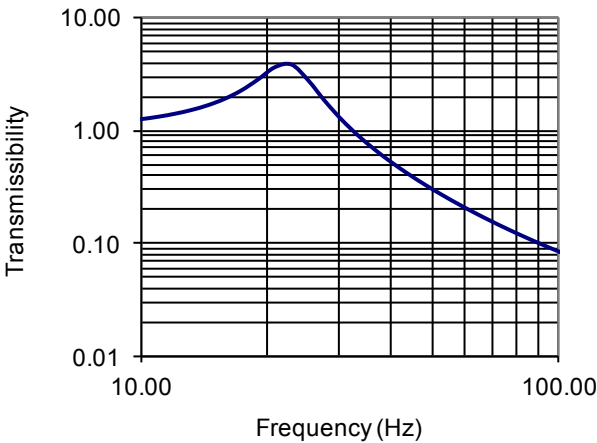


Performance Characteristics

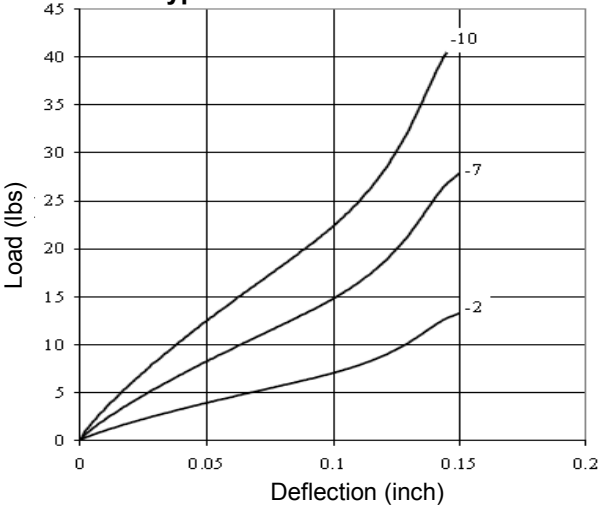
Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
VIB3127-2	18	152	27	168	30
VIB3127-3	20	178	31	198	35
VIB3127-4	21	209	37	232	41
VIB3127-5	23	244	43	271	47
VIB3127-6	25	278	49	309	54
VIB3127-7	26	319	56	354	62
VIB3127-8	28	367	64	408	71
VIB3127-9	30	421	74	468	82
VIB3127-10	33	482	84	536	94

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load

Transmissibility vs. Frequency



Typical Load vs. Deflection



AVIONICS MOUNTS VIB3128 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F (silicone)

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 15 lb

Axial-Radial Stiffness Ratio: 1:1

Part Weight: 1.60 oz.

Materials & Finish:

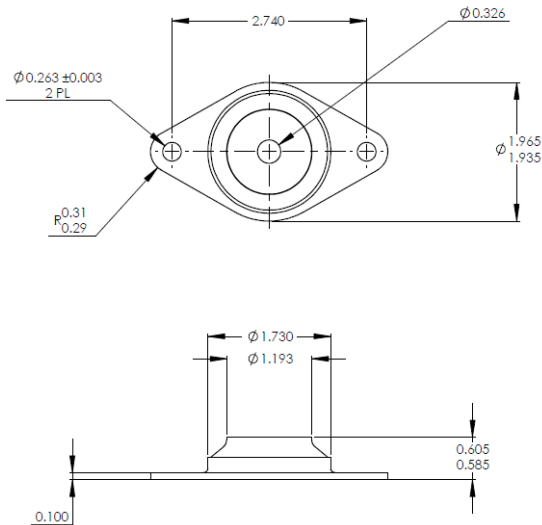
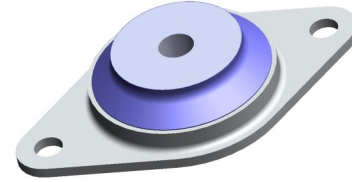
Core: Al 6061-T6 or T651 per QQ-A-250/11 or QQ-A-

225/6, Alodine 1200 per MIL-C-5541 Class 1A

Plate: AL 6061-T6 or T651 per QQ-A-250/11 or QQ-A-

225/6, Alodine 1200 per MIL-C-5541 Class 1A

Elastomer: Silicone



Performance Characteristics

Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
VIB3128-6	23	830	145	830	145
VIB3128-7	26	1000	175	1000	175
VIB3128-8	28	1170	205	1170	205
VIB3128-9	30	1360	239	1360	239
VIB3128-10	32	1610	282	1610	282
VIB3128-11	35	1870	328	1870	328
VIB3128-12	37	2130	374	2130	374
VIB3128-13	40	2430	426	2430	426
VIB3128-14	43	2800	491	2800	491

*Fn at max rated load and .036 inch DA input

To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

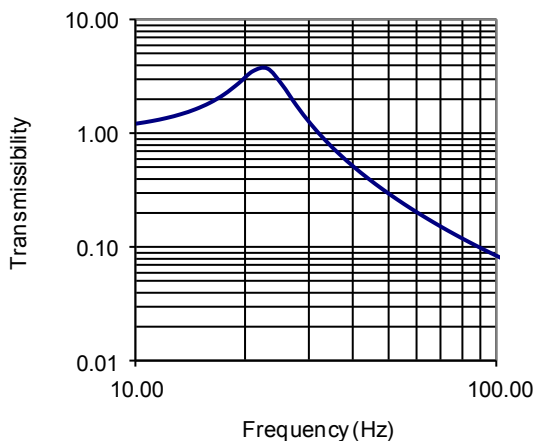
F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

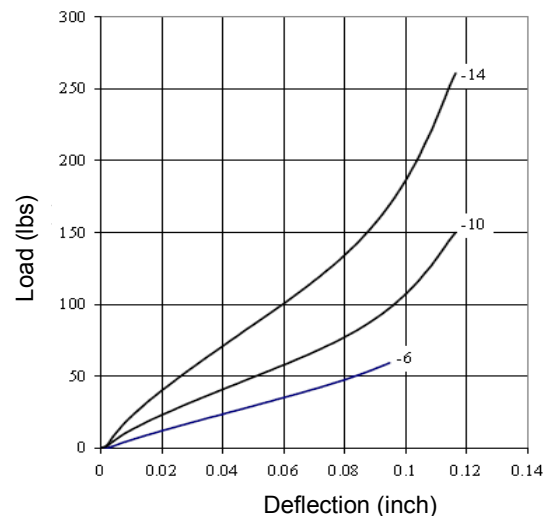
P_r : Rated load

P_a : Actual load

Transmissibility vs. Frequency



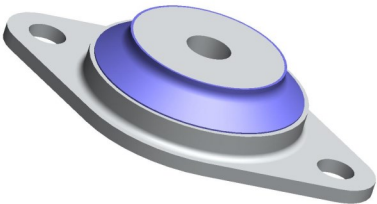
Typical Load vs. Deflection



AVIONICS MOUNTS VIB3129 SERIES

PRODUCT SPECIFICATIONS

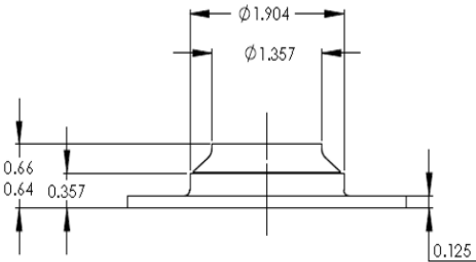
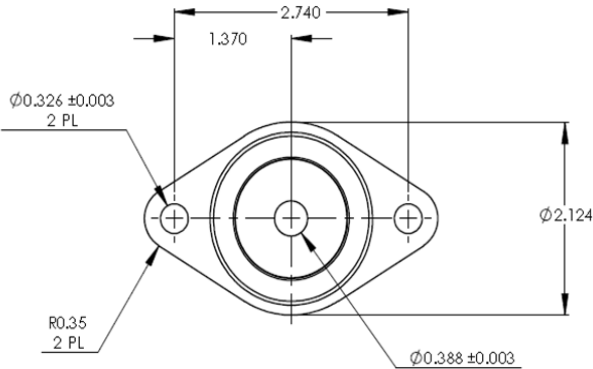
Operating Temperature: -65 to +300 F (silicone)
Maximum Transmissibility at Resonance: 4.0
Load Capacity: 20 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: 2.08 oz.
Materials & Finish:
Core: Al 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A
Plate: AL 6061-T6 or T651 per QQ-A-250/11 or QQ-A-225/6, Alodine 1200 per MIL-C-5541 Class 1A
Elastomer: Silicone



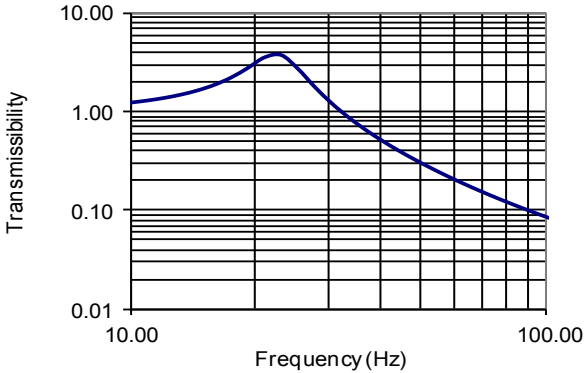
Performance Characteristics

Part No.	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
VIB3129-6	23	1100	193	1100	193
VIB3129-7	26	1330	233	1330	233
VIB3129-8	28	1560	274	1560	274
VIB3129-9	30	1810	318	1810	318
VIB3129-10	32	2150	377	2150	377
VIB3129-11	35	2490	437	2490	437
VIB3129-12	37	2840	497	2840	497
VIB3129-13	40	3240	567	3240	567
VIB3129-14	43	3700	648	3700	648

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



Transmissibility vs. Frequency



CUP STYLE MOUNTS

Cup style mounts are compact, low profile, extremely rugged mounts suitable for vibration and shock applications in the most severe environments. Their fail-safe, all-attitude construction and a choice of elastomer materials makes them suitable for a wide range of uses. Equipment may be mounted from cup style mounts in any orientation (attitude) while achieving equal shock and vibration performance. Cup style mounts are ideal for applications on military ground vehicles, aircraft, aerospace and electronics racking systems.

Features:

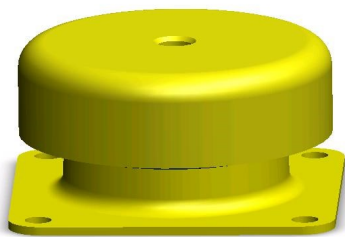
- Fail-safe all attitude design
- Compact, lightweight design
- 1:1 Axial to Radial spring rate
- Gradually increasing spring rate

Cup style mounts are available in two sizes:

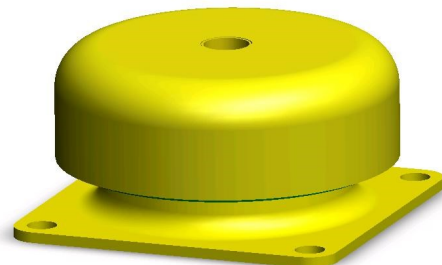
- 1701 size: 4 load ratings from 20 to 100 lb
- 1702 size: 4 load ratings from 50 to 250 lb

Applicable Specifications:

- MIL-STD-810
- MIL-STD-167
- MIL-E-5400
- MIL-M-17185



VIB701



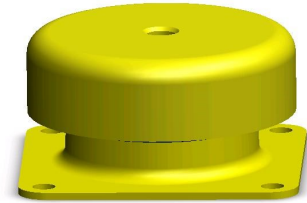
VIB702

CUP MOUNTS VIB1701 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -40 to +180 F (Natural Rubber)
 -67 to +300 F (Silicone)
 -65 to +280 F (Universal)
 Maximum Transmissibility at Resonance: 10.0 (Natural Rubber)
 4.0 (Silicone)
 6.0 (Universal)

Load Capacity: 20 – 100 lb
 Axial-Radial Stiffness Ratio: 1:1
 Part Weight: 6 oz. (STL), 3 oz (AL)
 Materials: Pedestal & Cup: Steel per ASTM A1008, Zinc plated per ASTM B633 Type II, Class SC3
 Core: Steel per ASTM A108, Zinc plated per ASTM B633 Type II, Class SC3

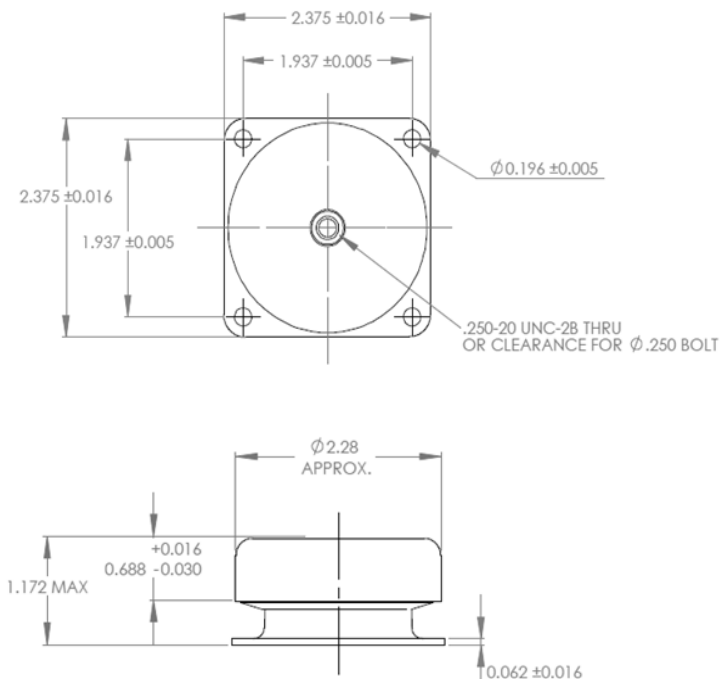


Performance Characteristics

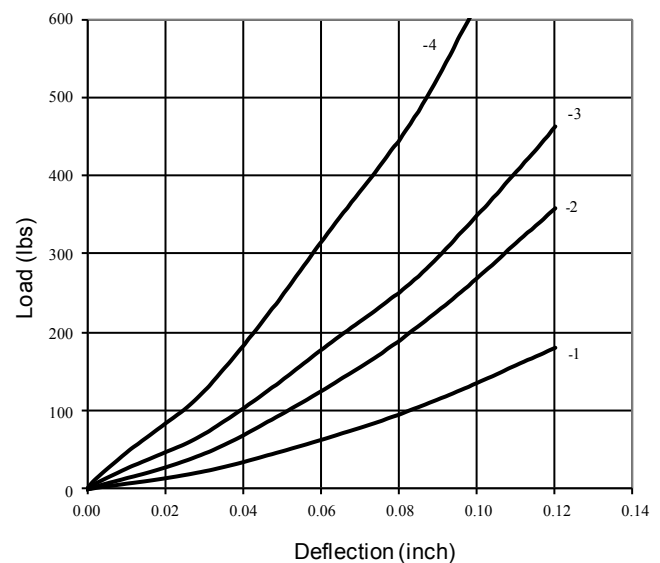
Load Rating Vibration	Load Rating Shock	Part No. Natural	Part No. Silicone	Part No. Universal	Axial Natural Frequency	Dynamic Spring Rate	
lbs	lbs				Hz	lb/in	N/ mm
20	14	VIB1701-1	VIB3701-1	VIB5701-1	25	1276	226
30	24	VIB1701-2	VIB3701-2	VIB5701-2		1914	339
70	38	VIB1701-3	VIB3701-3	VIB5701-3		4466	791
100	60	VIB1701-4	VIB3701-4	VIB5701-4		6380	1131

· Threaded versions are indicated with a "T"
 (ex. VIB3701-1T)
 · Aluminum versions are indicated with an "L"
 (ex. VIB3701-1TL)

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
 Where:
 F_n : Natural Frequency at actual load (Hz)
 F_{nn} : Nominal Natural Frequency (Hz)
 P_r : Rated load
 P_a : Actual load



Typical Load vs. Deflection



CUP MOUNTS VIB1702 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -40 to +180 F (Natural Rubber)

-67 to +300 F (Silicone)

-65 to +280 F (Universal)

Maximum Transmissibility at Resonance: 10.0 (Natural Rubber)

4.0 (Silicone)

6.0 (Universal)

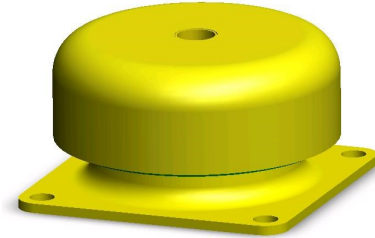
Load Capacity: 50 – 250 lb

Axial-Radial Stiffness Ratio: 1:1

Part Weight: 1 lb

Materials: Pedestal & Cup: Steel per ASTM A1008, Zinc plated per ASTM B633 Type II, Class SC3

Core: Steel per ASTM A108, Zinc plated per ASTM B633
Type II, Class SC3



Performance Characteristics

Load Rating Vibration	Load Rating Shock	Part No. Natural	Part No. Silicone	Part No. Universal	Natural Frequency (Vibration)	Dynamic Spring Rate	
lbs	lbs				Hz	lb/in	N/mm
50	30	VIB1702-1	VIB3702-1	VIB5702-1	22	2470	438
100	50	VIB1702-2	VIB3702-2	VIB5702-2		4940	876
150	80	VIB1702-3	VIB3702-3	VIB5702-3		7410	1314
250	105	VIB1702-4	VIB3702-4	VIB5702-4		12350	2190

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r/P_a}$$

Where:

F_n : Natural Frequency at actual load (Hz)

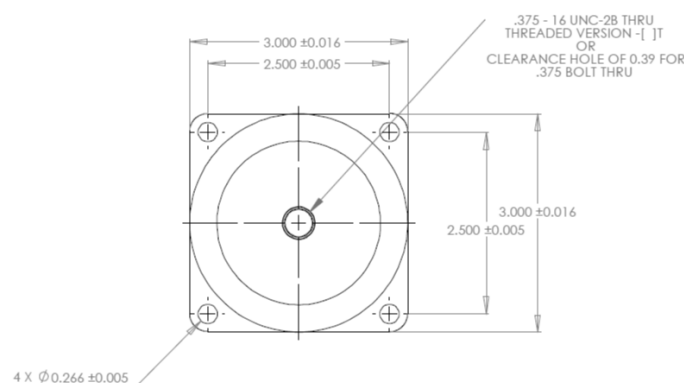
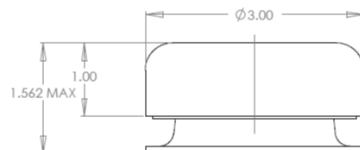
F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

P_a : Actual load

Threaded versions are indicated with a "T"
(ex. VIB3701-1T)

Aluminum versions are indicated with an “L”
(ex. VIB3701-1TL)



SPRING MOUNTS “L” TYPE

“L” type spring mounts are compact fail-safe mounts specially designed for propeller driven aircraft. They are low frequency and very highly damped ideal for the isolation of sensitive equipment in rotary or propeller drive aircraft.

“L” type spring mounts are intended for base mounting orientation only and will work at inclination angles up to 10°. They are fail-safe and capable of surviving a 30G 11ms half sine shock.

Features:

- Fail-safe
- Compact, lightweight design
- 4:1 Axial to Radial spring rate
- Highly damped
- Very low radial spring rate

Spring mounts are available in two sizes:

- 3719 size: 7 load ratings from 2 to 40 lb
- 3725 size: 7 load ratings from 0.50 to 10 lb

Applicable Specifications:

- MIL-STD-810
- MIL-STD-167
- MIL-E-5400
- MIL-C-172



VIB3719

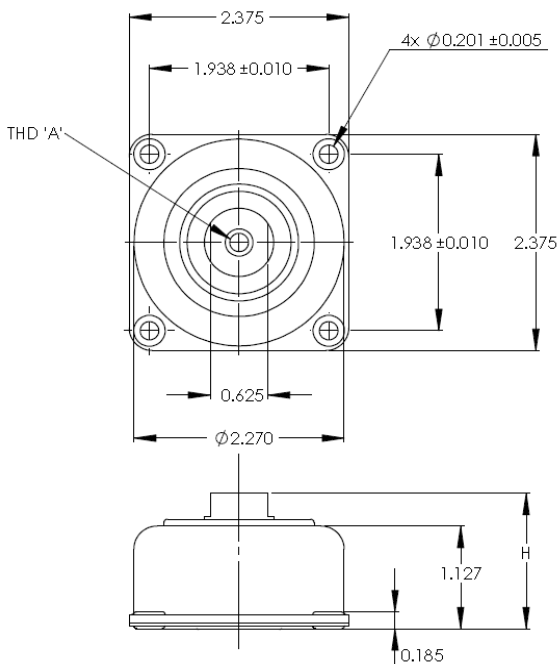


VIB3725

SPRING MOUNTS “L” TYPE VIB3719 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +250 F
 Maximum Transmissibility at Resonance: 2.5
 Load Capacity: 2.0 – 40 lbs
 Part Weight: 3.6 oz.
 Maximum Dynamic Input: 0.08 inch DA
 Maximum Radial Travel: 0.286 inch
 Materials & Finish:
 Cup: 5052 AL per QQ-A-250
 Bright anodize per MIL-A-8625
 Base plate: 5052 AL per QQ-A-250
 Clear anodize per MIL-A-8625
 Core: 6061 AL per QQ-A-225
 Clear Anodize per MIL-A-8625
 Grommet: EPDM



Performance Characteristics

Part No.	Load Rating (lbs)		Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Min	Max		lb/in	N/mm	lb/in	N/mm
VIB3719-1	2.0	4.5	7	22.5	4	6	1
VIB3719-2	3.0	6.0		30	5	8	1.3
VIB3719-3	4.5	10		50	9	13	2
VIB3719-4	6.25	12.5		63	11	16	3
VIB3719-5	9.0	16		80	14	20	4
VIB3719-6	10	20		100	18	25	4
VIB3719-7	20	40		200	35	50	8

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:
 $F_n = F_{nn} \sqrt{P_r / P_a}$
 Where:
 F_n : Natural Frequency at actual load (Hz)
 F_{nn} : Nominal Natural Frequency (Hz)
 P_r : Rated load
 P_a : Actual load

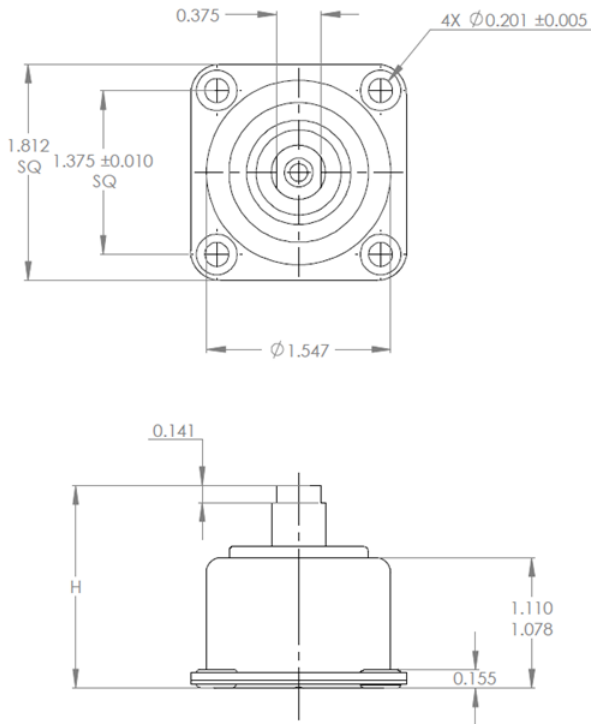
Variation	Approx. Un- der Min Load	Maximum Extended	Minimum Compressed
STANDARD	1.406	1.54	0.982
- L	1.562	1.706	1.148

Variation	Thread 'A'
STANDARD	.250-20 UNC-2B x .375 Min Deep
- L	.250-20 UNC-2B x .562 Min Deep
-F	.250-28 UNF-2B x .375 Min Deep
-LF	.250-28 UNC-2B x .562 Min Deep

SPRING MOUNTS “L” TYPE VIB3725 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +250 F
 Maximum Transmissibility at Resonance: 2.5
 Load Capacity: 0.5 – 10 lb
 Part Weight: 2 oz.
 Maximum Dynamic Input: 0.08 inch DA
 Maximum Radial Travel: 0.218 inch
 Materials & Finish:
 Cup: 5052 AL per QQ-A-250
 Bright anodize per MIL-A-8625
 Base plate: 5052 AL per QQ-A-250
 Clear anodize per MIL-A-8625
 Core: 6061 AL per QQ-A-225
 Clear Anodize per MIL-A-8625
 Grommet: EPDM



Performance Characteristics

Part No.	Load Rating (lbs)		Axial Natural Frequency Hz	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Min	Max		lb/in	N/mm	lb/in	N/mm
VIB3725-1	0.25	0.50	7	2.5	0.4	0.6	0.1
VIB3725-2	0.50	1.0		5	0.9	1.3	0.2
VIB3725-3	1.0	2.0		10	1.8	2.5	0.4
VIB3725-4	1.5	3.0		15	2.6	4	0.7
VIB3725-5	2.0	4.0		20	3.6	5	0.9
VIB3725-6	2.5	5.0		25	4.4	6	1
VIB3725-7	5.0	10		50	9	13	2

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

Where:

F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

P_a : Actual load

Variation	Approx. Under Min Load	Maximum Extended	Minimum Compressed
STANDARD	1.375	1.632	0.975
- L	1.562	1.788	1.131

Variation	Thread 'A'
STANDARD	.164-32 UNC-2B x .500 Min Deep
- L	.164-32 UNC-2B x .500 Min Deep

SPRING MOUNTS “H” TYPE

“H” Type spring mounts are rugged, low frequency vibration mounts specially designed to protect sensitive electronics in helicopter or propeller driven aircraft. They are fail-safe and use a friction-damped spring as a resilient element which gives them very consistent performance over a broad range of temperatures. “H” Type spring mounts are intended for base mounting orientation only and will work at inclination angles up to 10°. They are fail-safe and capable of surviving a 30G 11ms half sine shock.

Features:

- Fail-safe
- Compact, lightweight design
- 4:1 Axial to Radial spring rate
- Highly damped
- Very low radial spring rate

Spring mounts are available in two sizes:

- 3724 size: 7 load ratings from 2 to 40 lb
- 726 size: 7 load ratings from 0.50 to 10 lb

Applicable Specifications:

- MIL-STD-810
- MIL-STD-167
- MIL-E-5400
- MIL-C-172



VIB3724



VIB726

SPRING MOUNTS “H” TYPE VIB3724 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +250 F

Maximum Transmissibility at Resonance: 2

Load Capacity: 2.0 – 40 lbs

Part Weight: 3.6 oz.

Maximum Dynamic Input: 0.08 inch DA

Maximum Radial Travel: 0.286 inch

Materials & Finish:

Cup: 5052 AL per QQ-A-250

Bright anodize per MIL-A-8625

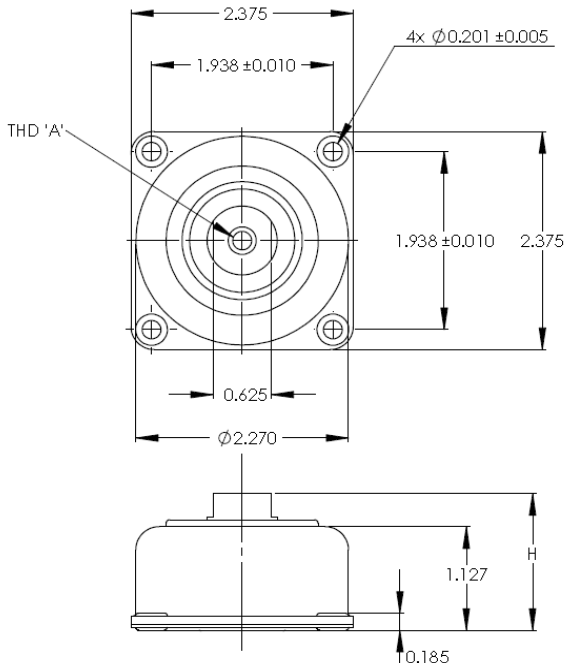
Base plate: 5052 AL per QQ-A-250

Clear anodize per MIL-A-8625

Core: 6061 AL per QQ-A-225

Clear Anodize per MIL-A-8625

Grommet: EPDM



Performance Characteristics

Part No.	Load Rating (lbs)		Axial Natural Frequency Hz	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Min	Max		lb/in	N/mm	lb/in	N/mm
VIB3724-1	2.0	4.0	8	26	5	7	1
VIB3724-2	3.0	6.0		39	7	10	2
VIB3724-3	5.0	10		65	11	16	3
VIB3724-4	9.0	15		98	17	25	4
VIB3724-5	14	20		130	23	32	6
VIB3724-6	18	30		196	34	49	9
VIB3724-7	25	40		260	46	65	11

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

Where:

F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

P_a : Actual load

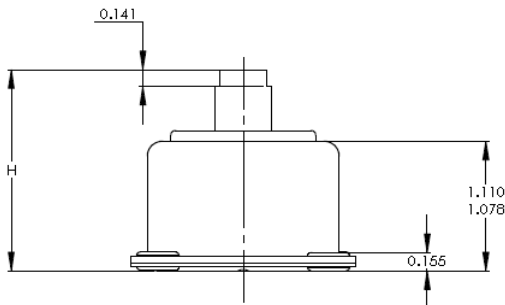
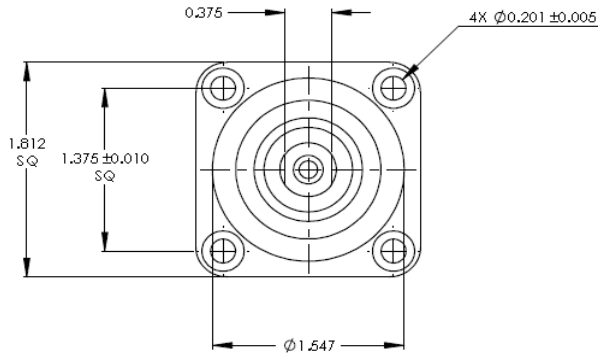
Variation	Approx. Under Min Load	Maximum Extended	Minimum Compressed
STANDARD	1.41	1.54	0.98
- L	1.57	1.70	1.14

Variation	Thread 'A'
STANDARD	.250-20 UNC-2B x .375 Min Deep
- L	.250-20 UNC-2B x .562 Min Deep

SPRING MOUNTS “H” TYPE VIB726 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +250 F
 Maximum Transmissibility at Resonance: 2.0
 Load Capacity: 0.5 – 10 lb
 Part Weight: 2 oz.
 Maximum Dynamic Input: 0.06 inch DA
 Maximum Radial Travel: 0.218 inch
 Materials & Finish:
 Cup: 5052 AL per QQ-A-250
 Bright anodize per MIL-A-8625
 Base plate: 5052 AL per QQ-A-250
 Clear anodize per MIL-A-8625
 Core: 6061 AL per QQ-A-225
 Clear Anodize per MIL-A-8625
 Grommet: EPDM



Performance Characteristics

Part No.	Load Rating (lbs)		Axial Natural Frequency Hz	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Min	Max		lb/in	N/mm	lb/in	N/mm
VIB726-1	0.25	0.50	7	2.5	0.5	0.6	0.1
VIB726-2	0.50	1.0		5.0	1	1.2	0.2
VIB726-3	1.0	2.0		10	2	2.5	0.5
VIB726-4	1.5	3.0		15	3	4	0.7
VIB726-5	2.0	4.0		20	4	5	0.9
VIB726-6	4.0	6.0		30	5	8	1.4
VIB726-7	5.0	10		50	9	13	2

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

F_n: Natural Frequency at actual load (Hz)

F_{nn}: Nominal Natural Frequency (Hz)

P_r: Rated load

P_a: Actual load

Variation	Approx. Under Min Load	Maximum Extended	Minimum Compressed
STANDARD	1.375	1.632	0.975
- L	1.562	1.788	1.131

Variation	Thread 'A'
STANDARD	.164-32 UNC-2B x .500 Min Deep
- L	.164-32 UNC-2B x .500 Min Deep

HIGH DEFLECTION MOUNTS VIB801 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +300 F (Silicone)
-20 to +180 F (Neoprene)

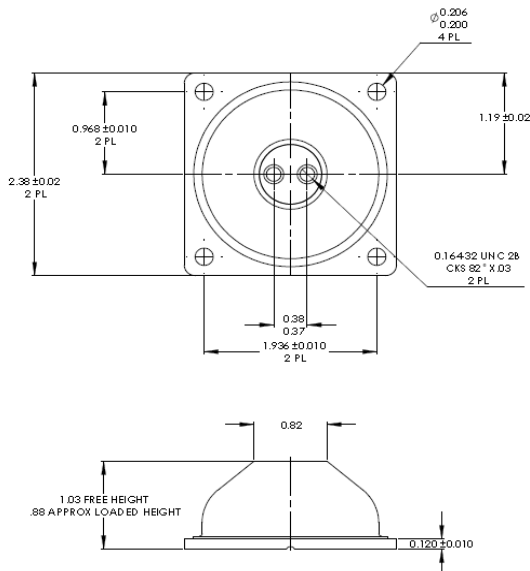
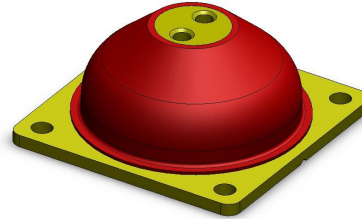
Maximum Transmissibility at Resonance: 4.0 (Silicone)
10.0 (Neoprene)

Load Capacity: 7 – 15 lb

Axial-Radial Stiffness Ratio: 1:1

Part Weight: 2.0 oz.

Materials: Core and Base Plate: Aluminum alloy 6061
-T6, chem. film per MIL-C-5541 Class 1A



Performance Characteristics

Load Rating (lbs)	Part No. Neoprene	Part No. Silicone	Axial Natural Freq.	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
			Hz	lb/in	N/mm	lb/in	N/mm
7.0	VIB2801-1	VIB3801-1	15	160	29	160	29
10.0	VIB2801-2	VIB3801-2		230	41	230	41
15.0	VIB2801-3	VIB3801-3		344	62	344	62

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

Where:

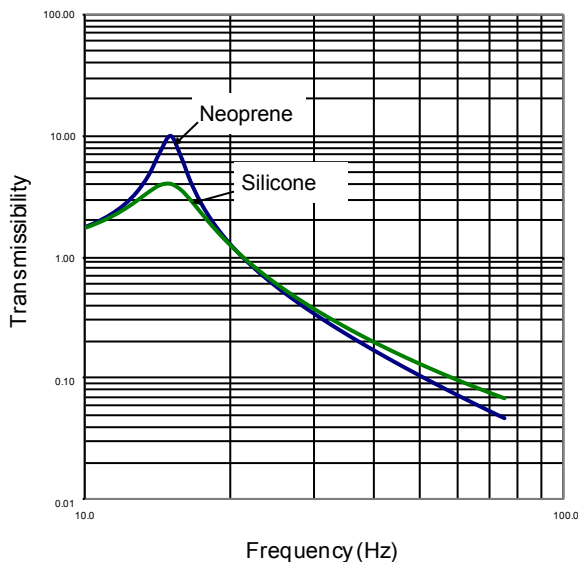
F_n : Natural Frequency at actual load (Hz)

F_{nn} : Nominal Natural Frequency (Hz)

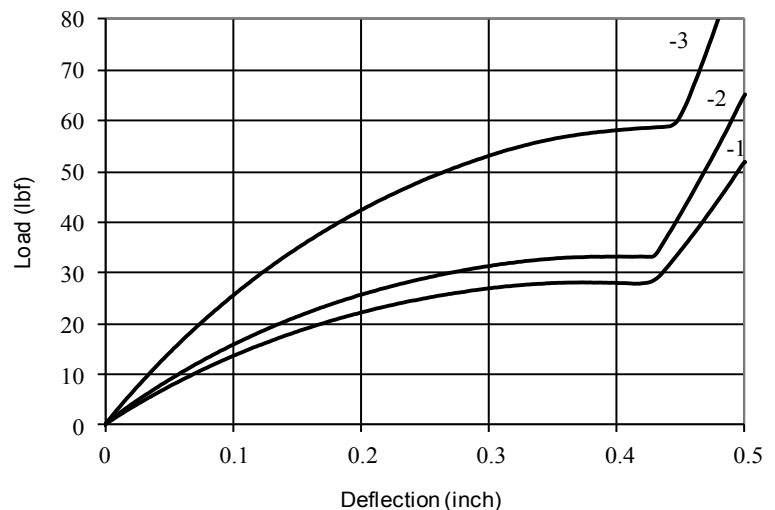
P_r : Rated load

P_a : Actual load

Transmissibility vs. Frequency



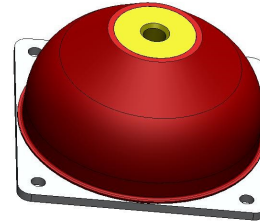
Typical Load vs. Deflection



HIGH DEFLECTION MOUNTS VIB803 SERIES

PRODUCT SPECIFICATIONS

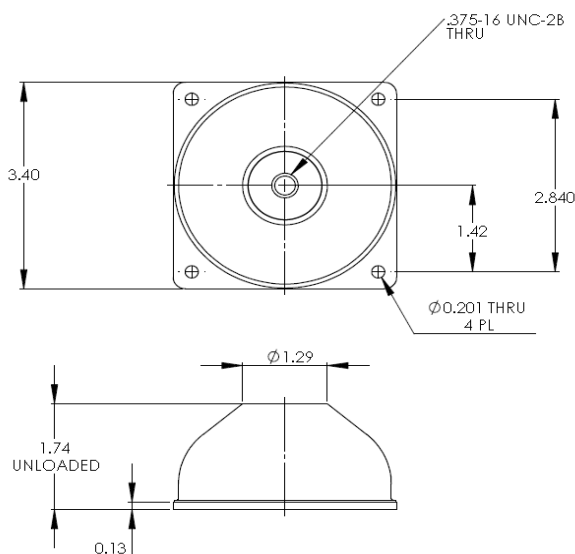
Operating Temperature: -67 to +300 F (Silicone)
 -20 to +180 F (Neoprene)
 Maximum Transmissibility at Resonance: 4.0 (Silicone)
 10.0 (Neoprene)
 Load Capacity: 12 – 30 lb
 Axial-Radial Stiffness Ratio: 2.3:1
 Part Weight: 6.5 oz.
 Materials: Core and Base Plate: Aluminum alloy 6061-T6, chem.
 film per MIL-C-5541 Class 1A



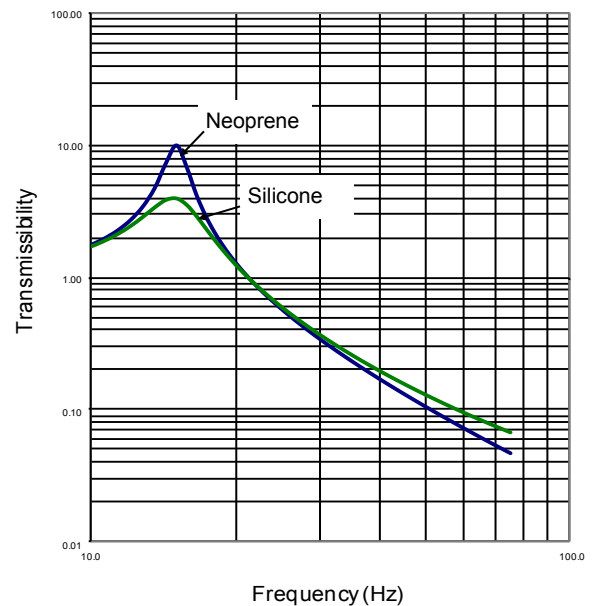
Performance Characteristics

Load Rating (lbs)	Part No. Neoprene	Material	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
			Hz	lb/in	N/mm	lb/in	N/mm
8-12	VIB2803-1	Neoprene	20	494	87	213	38
15-20	VIB2803-2			809	142	352	62
20-30	VIB2803-3			1235	217	537	94
7-10	VIB3803-1	Silicone	22	494	87	215	38
12-18	VIB3803-2			809	142	352	62
18-25	VIB3803-3			1235	217	537	94

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:
 $F_n = F_{nn} \sqrt{P_r / P_a}$
 Where:
 F_n : Natural Frequency at actual load (Hz)
 F_{nn} : Nominal Natural Frequency (Hz)
 P_r : Rated load
 P_a : Actual load



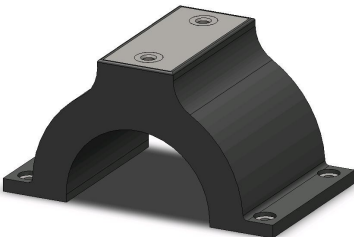
Transmissibility vs. Frequency



HIGH DEFLECTION MOUNTS VIB804 SERIES

PRODUCT SPECIFICATIONS

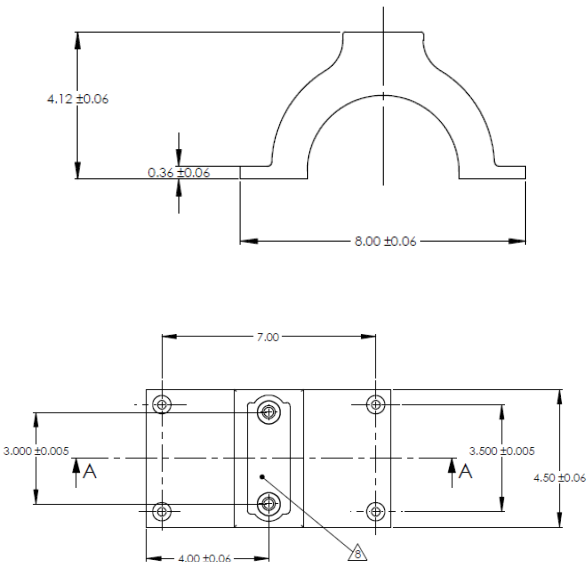
Operating Temperature: -67 to +180 F (Extended Service Blend)
-20 to +180 F (Neoprene)
Maximum Transmissibility at Resonance: 5.0 (ESB)
10.0 (Neoprene)
Load Capacity: 45 – 145 lb
Axial-Radial Stiffness Ratio: 2:1
Part Weight: 4.0 lbs
Materials: Plates: Steel per ASTM A1008, painted



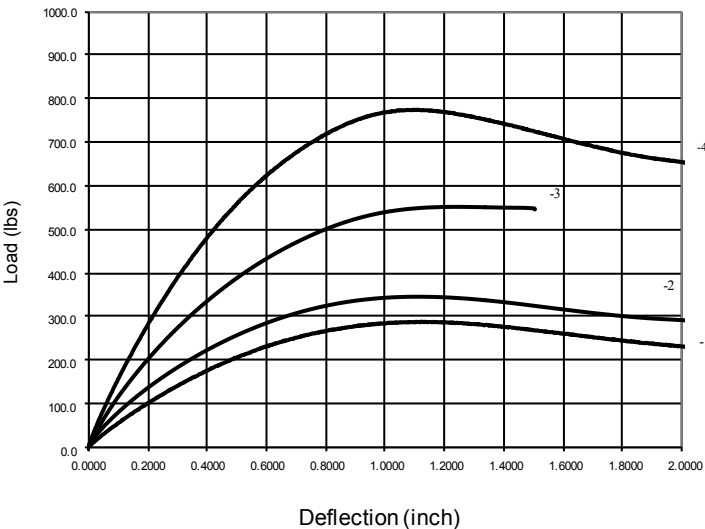
Performance Characteristics

Load Rating (lbs)	Part No. Neoprene	Part No. ESB	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
			Hz	lb/in	N/mm	lb/in	N/mm
45	VIB2804-1	VIB7804-1	12	661	118	330	59
70	VIB2804-2	VIB7801-2		1030	184	515	92
100	VIB2804-3	VIB7804-3		1470	262	735	131
145	VIB2804-4	VIB7804-4		2130	380	1065	190

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



Typical Axial Load-Deflection



HOLDER TYPE All Attitude, High Performance Mounts

Holder type mounts are shock and vibration isolators designed for the protection of sensitive equipment in severe dynamic environments. Specifically designed for high performance in challenging aerospace applications, they are efficient, lightweight and extremely durable. They are suitable for all attitude mounting, are fail-safe and provide protection in all axes. They are designed to produce natural frequencies in the range of 20 — 25 Hz in an ambient temperature range of -65 to + 300 °F. The silicone elastomer blend used in the construction of holder type mounts produces excellent damping characteristics resulting in a maximum amplification at resonance of 4.0 for all sizes under typical environmental conditions.

Holder type mounts employ a robust construction that is capable of withstanding 30G 11ms half sine shock pulses without failure. They are capable of withstanding repeated 15G shock pulses and can isolate vibration at static accelerations up to 5 G.

They are available in 3 sizes with load ratings from 1 to 100 lbs. Series VIB3710, VIB3720 and VIB3722 are designed for base mounting. While sizes VIB3711, VIB3721 and VIB3723 are inverted for internal configurations.

Features:

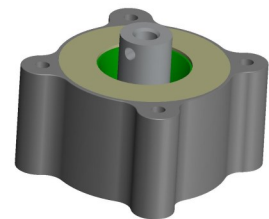
- Lightweight, low-profile design
- Efficiently isolates vibration in all directions
- 1:1 Axial to Radial spring rate
- Fail-safe construction

Holder type mounts are available in three sizes:

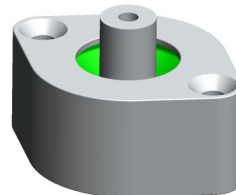
- 3722/3723 size: 5 load ratings from 1 to 7 lb
- 3720/3721 size: 3 load ratings from 10 to 20 lb
- 3710/3711 size: 5 load ratings from 23 to 100 lb

Applicable Military Specifications:

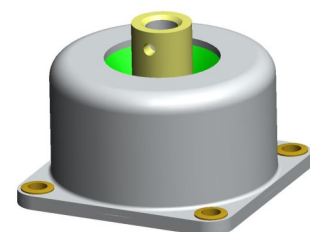
- MIL-STD-810



VIB3720 & VIB3721 Series



VIB3722 & VIB3723 Series



VIB3710 & VIB3711 Series

HOLDER TYPE VIB3722/VIB3723 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 1.0 – 7 lb

Axial-Radial Stiffness Ratio: 1:1

Part Weight: 1.0 oz.

Materials & Finish:

Holder: Aluminum alloy 6061-T6 per ASTM B221,
Anodized and dyed Grey per MIL-A-8625

Elastomer: Silicone

Core: 2024-T4 per QQ-A-225/6, Alodine per MIL-C-5541 Class 1A, Gold

Washer: 2024-T0 per QQ-A-250/4, Alodine per MIL-C-5541 Class 1A, Gold

Performance Characteristics

Part No.	Max. Static Load (Axial)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Lbs		Hz	lb/in	N/mm	lb/in
VIB3722-1	1.0	22	49	9	54	10
VIB3723-1						
VIB3722-2	2.0		99	17	109	19
VIB3723-2						
VIB3722-3	3.0		148	26	163	29
VIB3723-3						
VIB3722-5	5.0		247	43	272	48
VIB3723-5						
VIB3722-7	7.0		346	61	381	67
VIB3723-7						

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

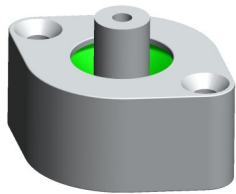
Where:

F_n : Natural Frequency at actual load (Hz)

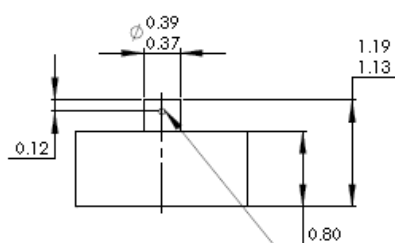
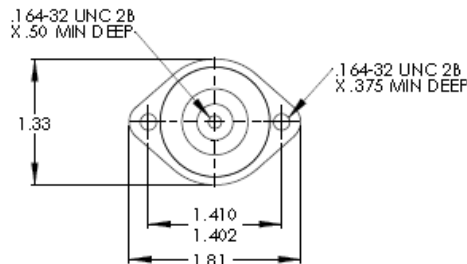
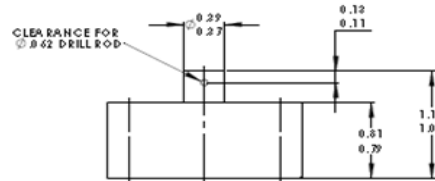
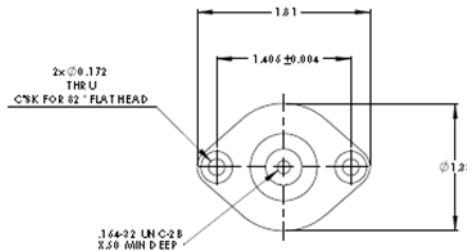
F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

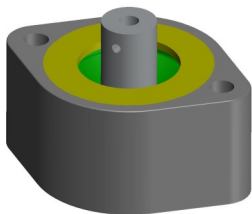
P_a : Actual load



VIB3722

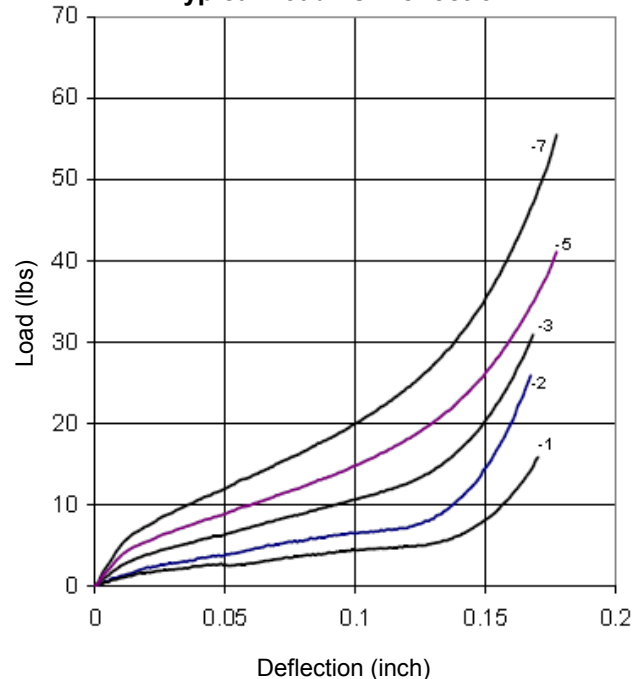


CLEARANCE FOR .062 DRILL ROD



VIB3723

Typical Load vs. Deflection



HOLDER TYPE VIB3720/VIB3721 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -65 to +300 F

Maximum Transmissibility at Resonance: 4.0

Load Capacity: 10 – 20 lb

Axial-Radial Stiffness Ratio: 1:1

Part Weight: 2.7 oz.

Materials & Finish:

Holder: Aluminum alloy 6061-T6 per ASTM B221,
Anodized and dyed Grey per MIL-A-8625

Elastomer: Silicone

Core: 2024-T4 per QQ-A-225/6, Alodine per MIL-C-
5541 Class 1A, Gold

Washer: 2024-T3 per QQ-A-250/4, Alodine per
MIL-C-5541 Class 1A, Gold

Performance Characteristics

Part No.	Max. Static Load (Axial)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Lbs	Hz	lb/in	N/mm	lb/in	N/mm
VIB3720-10	10.0	22	494	86	445	78
VIB3721-10						
VIB3720-15	15.0		741	130	667	117
VIB3721-15						
VIB3720-20	20.0		968	173	889	156
VIB3721-20						

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

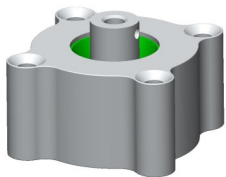
Where:

F_n : Natural Frequency at actual load (Hz)

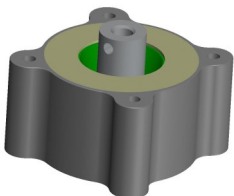
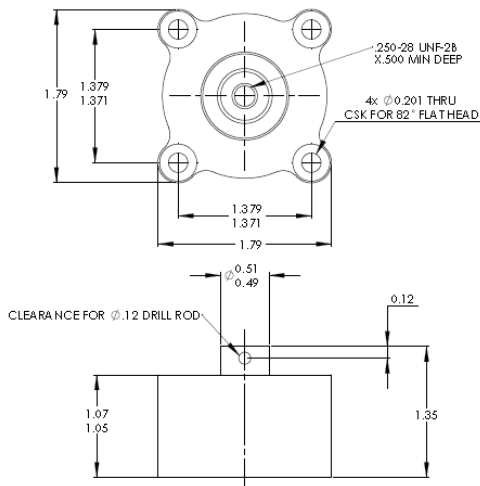
F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

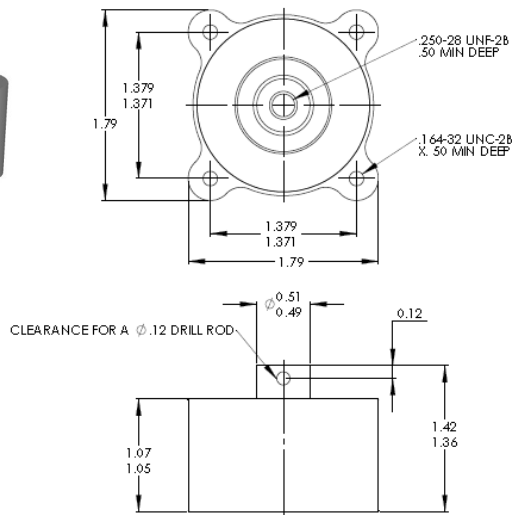
P_a : Actual load



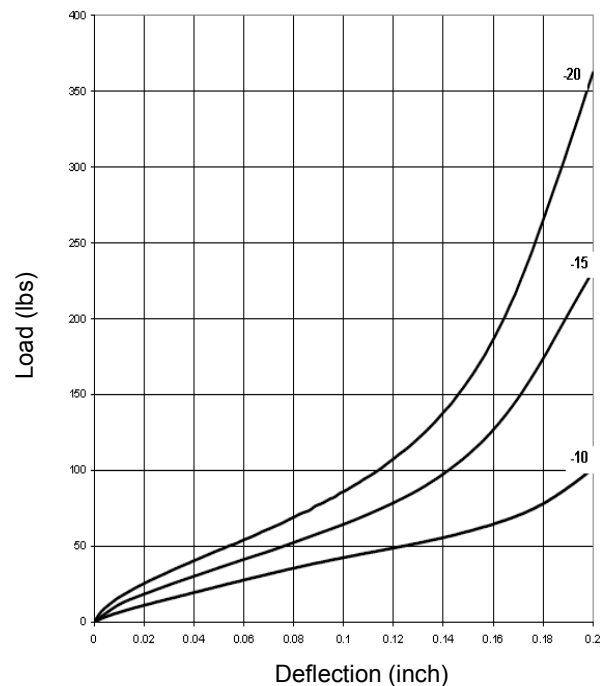
VIB3720



VIB3721



Typical Load vs. Deflection



LOW PROFILE MOUNTS All Attitude Vibration Isolators

Low profile mounts are compact, lightweight vibration isolators designed for the protection of sensitive equipment in severe dynamic environments. Designed to be highly adaptable to challenging applications in a wide variety of industries, they are all attitude, fail-safe and provide efficient vibration protection in all axes. They produce natural frequencies in the range of 15 — 20 Hz and are available in a selection of materials to accommodate many environmental conditions.

For general purpose applications a natural rubber version is available. These versions (VIB1101 and VIB1102) are suitable in applications where ambient temperatures range from -25 to $+180$ °F. Damping in this material is moderate resulting in maximum amplification at resonance of 10.0 under typical environmental conditions.

For industrial applications, where oil or chemical exposure is possible, a neoprene elastomer version is available. These versions (VIB2101 and VIB2102) are suitable in applications where ambient temperatures range from -20 to $+220$ °F. Damping in this material is moderate resulting in maximum amplification at resonance of 10.0 under typical environmental conditions.

For aerospace applications or where temperature extremes are anticipated, a silicone version is available. These versions (VIB3101 and VIB3102) are appropriate where temperature ranges from -65 to $+300$ °F. The silicone elastomer blend used in the construction of holder type mounts produces excellent damping characteristics resulting in a maximum amplification at resonance of 4.0 for all sizes under typical environmental conditions.

Low profile mounts are rugged and fail-safe for survival of severe dynamic inputs. They are capable of withstanding 15G 11 ms half-sine shock inputs without damage. They are available in 2 sizes with load ratings from 1 to 18 lbs.

Features:

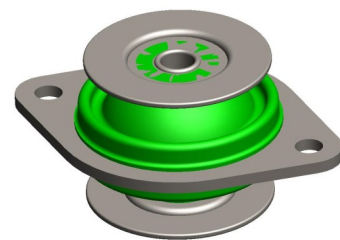
- Lightweight, low-profile design
- Efficiently isolates vibration in all directions
- 1:1 Axial to Radial spring rate
- Fail-safe construction

Low Profile mounts are available in two sizes:

- 101 size: 4 load ratings from 1 to 11 lb
- 102 size: 5 load ratings from 6 to 18 lb

Applicable Military Specifications:

- MIL-STD-810



VIB102



VIB101

LOW PROFILE MOUNTS VIB101 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature:

-65 to +300 F (Silicone)

-20 to +225 F (Neoprene)

-40 to +180 F (NR)

Maximum Transmissibility at Resonance: 4.0 (Silicone)
10.0 (Neoprene)
10.0 (NR)

Load Capacity: 1.0 – 11 lb

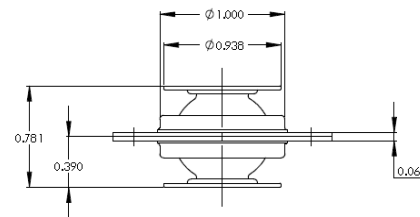
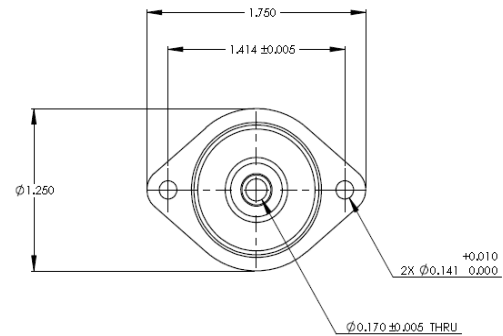
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 1.0 oz.

Materials & Finish:

Metal Components: Steel per ASTM A1008/A1011, Zinc
plated per ASTM B633 Type I

Elastomer: See table



Performance Characteristics

Part No.	Max. Static Load (Axial)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Lbs		Hz	lb/in	N/mm	lb/in
VIB1101-1	1.0	20	41	7	38	7
VIB2101-1						
VIB3101-1						
VIB1101-2	2.0		82	14	76	14
VIB2101-2						
VIB3101-2						
VIB1101-4	4.0		164	28	151	27
VIB2101-4						
VIB3101-4						
VIB1101-11	11.0		449	79	416	74
VIB2101-11						
VIB3101-11						

*Fn at max rated load and .036 inch DA input

To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

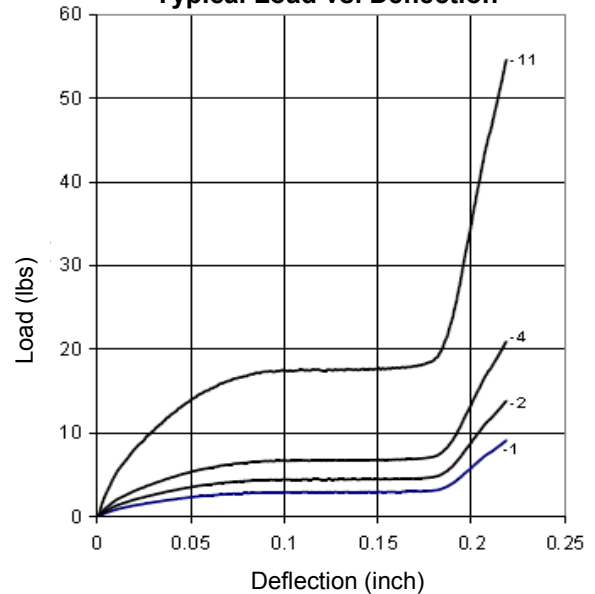
F_n: Natural Frequency at actual load (Hz)

F_{nn}: Nominal Natural Frequency (Hz)

P_r: Rated load

P_a: Actual load

Typical Load vs. Deflection



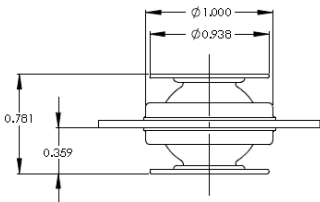
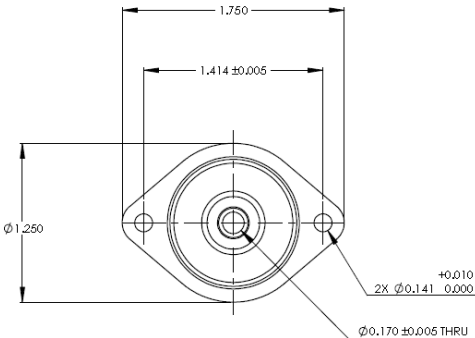
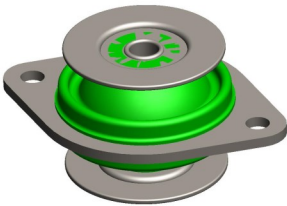
LOW PROFILE MOUNTS **VIB102 SERIES**

PRODUCT SPECIFICATIONS

Operating Temperature:
-65 to +300 F (Silicone)
-20 to +225 F (Neoprene)
-40 to +180 F (NR)

Maximum Transmissibility at Resonance: 4.0 (Silicone)
10.0 (Neoprene)
10.0 (NR)

Load Capacity: 4.0 – 18 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: 1.0 oz.
Materials & Finish:
Metal Components: Steel per ASTM A1008/A1011, Zinc
plated per ASTM B633 Type I
Elastomer: See table

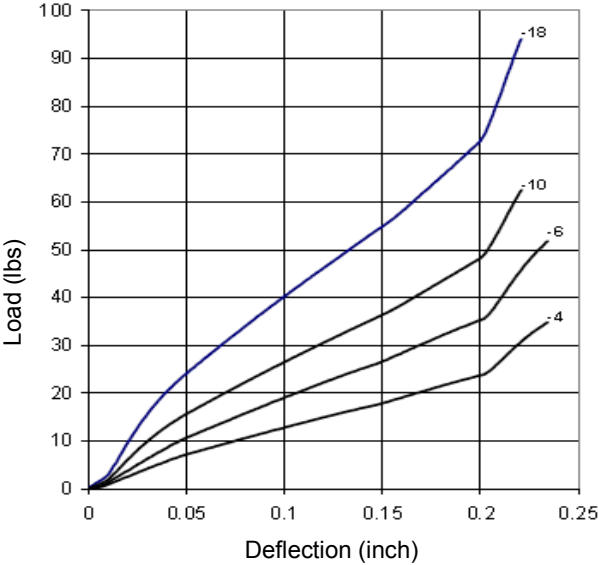


Performance Characteristics

Part No.	Max. Static Load (Axial)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Lbs		Hz	lb/in	N/mm	lb/in
VIB1102-1	4.0	20	163	29	154	27
VIB2102-1						
VIB3102-1						
VIB1102-2	6.0		245	43	232	41
VIB2102-2						
VIB3102-2						
VIB1102-4	10.0		408	72	386	68
VIB2102-4						
VIB3102-4						
VIB1102-11	18.0		735	130	695	123
VIB2102-11						
VIB3102-11						

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \sqrt{P_r / P_a}$
Where:
F_n: Natural Frequency at actual load (Hz)
F_{nn}: Nominal Natural Frequency (Hz)
P_r: Rated load
P_a: Actual load

Typical Load vs. Deflection



LOW PROFILE MOUNTS

Low profile mounts offer a compact, standardized solution to a multitude of vibration control problems. They are lightweight and rugged to satisfy challenging problems and minimize sway space requirements. They are suitable for aerospace, defense, medical and electronics applications. Low profile mounts are available with a mounting plate, in a platform base or as individual grommets.

Features:

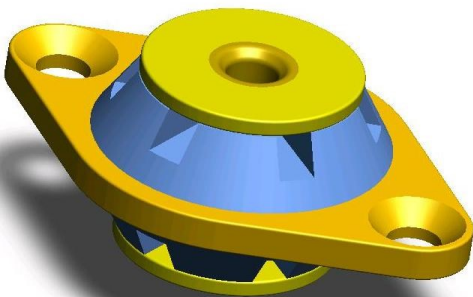
- Compact, lightweight design
- 1:1 Axial to Radial spring rate
- All attitude design
- Fail-safe design
- Efficiently isolates vibration in all directions
- Survives 30G 11ms 1/2 sine shock input at rated load

Low profile mounts are available in two sizes.

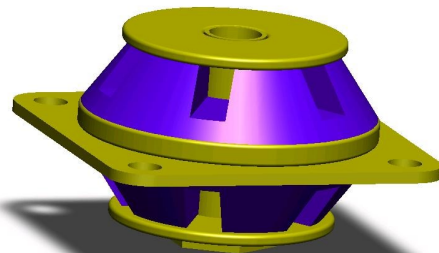
- 3203 Size: Load ratings from 4.5 to 10 lb
- 3204 Size: Load ratings from 15 to 50 lb

Applicable Military Specifications

- MIL-E-5400
- MIL-STD-810



VIB3203



VIB3206

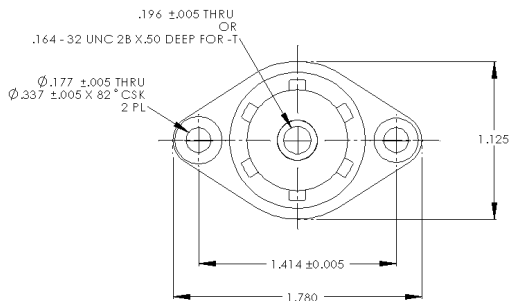
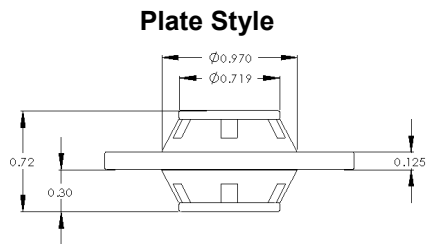
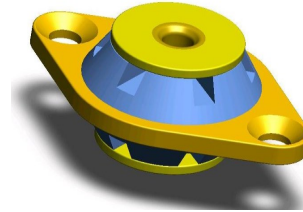
LOW PROFILE MOUNTS VIB3203 SERIES

PRODUCT SPECIFICATIONS

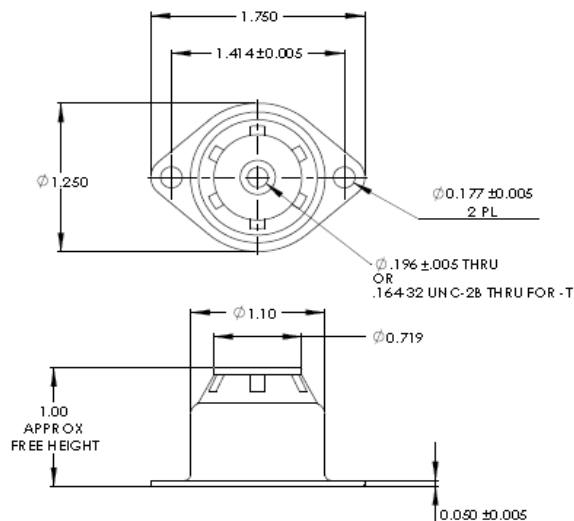
Operating Temperature: -67 to +300 F
 Maximum Transmissibility at Resonance: 4.0
 Load Capacity: 4.5 – 10 lb
 Axial-Radial Stiffness Ratio: 1:1
 Part Weight: 0.01 lb (Grommet Only)
 0.03 lb (Plate Style Mount)
 0.05 lb (Platform Base)

Materials:

Plate: Aluminum alloy, chromated MIL-C-5541, class 1A
 Core & washers: Steel, zinc plated ASTM B633
 Elastomer: Silicone



With Pedestal Base



Part Numbers

Load Rating	Grommet Only	Plate Style	w/ Pedestal Base
4.5	VIB3203-1	VIB3103-1	VIB3709-1
7.0	VIB3203-2	VIB3103-2	VIB3709-2
10.0	VIB3203-3	VIB3103-3	VIB3709-3

*For threaded versions add T to end (ex: VIB3103-1T)

*Special versions available on request

Performance Characteristics

P/N	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	Hz	lb/in	N/mm	lb/in	N/mm
-1	23	245	44	245	44
-2		380	68	380	68
-3		540	97	540	97

*Fn at max rated load and .036 inch DA input

To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

Where:

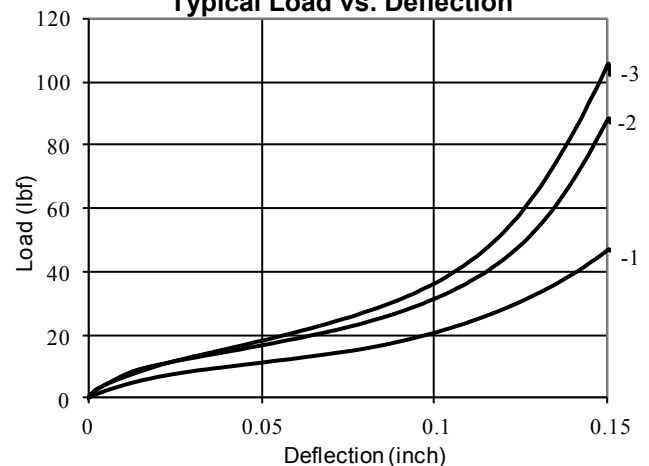
Fn: Natural Frequency at actual load (Hz)

Fnn: Nominal Natural Frequency (Hz)

Pr: Rated load

Pa: Actual load

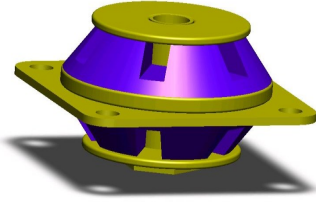
Typical Load vs. Deflection



LOW PROFILE MOUNTS VIB3206 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -67 to +300 F (Silicone Versions)
 -20 to +200 F (Neoprene Versions)
 Maximum Transmissibility at Resonance: 4.0 (Silicone)
 10.0 (Neoprene)
 Load Capacity: 15 – 50 lb
 Axial-Radial Stiffness Ratio: 1:0.8
 Part Weight: 0.6 oz (Grommet Only)
 2.5 oz (Plate Style Mount)
 Materials: Plate, Core & washers: Steel, zinc plated ASTM B633
 Elastomer: Silicone or Neoprene

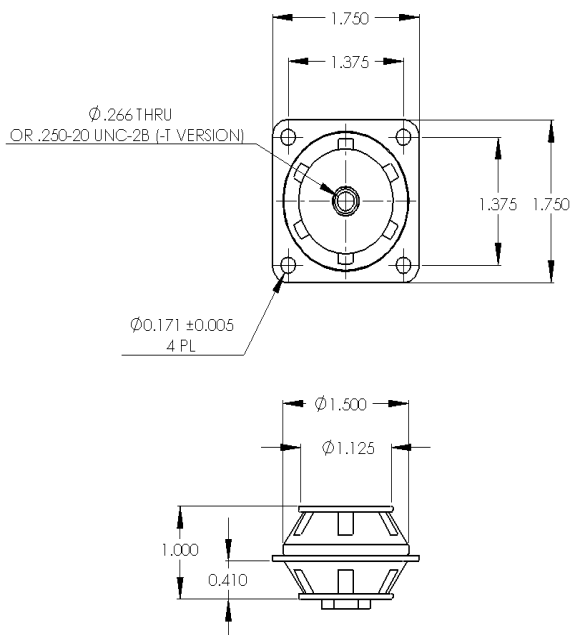


Part Numbers					
Load Rating Stationary	Load Rating Mobile	Silicone Plate Style Mount	Neoprene Plate Style Mount	Silicone Grommet Only	Neoprene Grommet Only
15	4-7	VIB3104-1	VIB2104-1	VIB3206-1	VIB2206-1
25	8-11	VIB3104-2	VIB2104-2	VIB3206-2	VIB2206-2
35	12-17	VIB3104-3	VIB2104-3	VIB3206-3	VIB2206-3
50	18-30	VIB3104-4	VIB2104-4	VIB3206-4	VIB2206-4

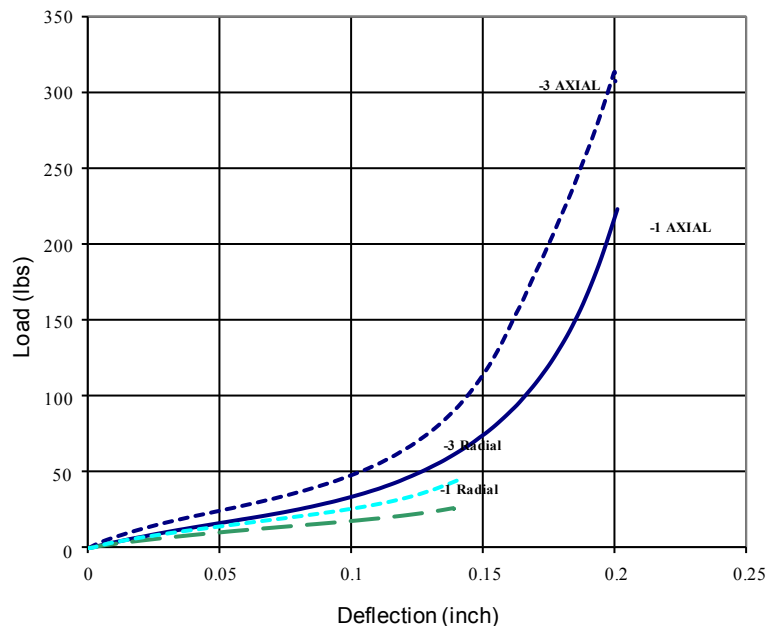
How to order:

VIB3104-2TX

- For .250-20 UNC-2B Tapped versions add T to the end of part number
- Use X for Hex end of tapped core on opposite side of 1.5 DIA ring
- Use Y for Hex end of tapped core on same side as 1.5 DIA ring



Typical Load vs. Deflection



LOW PROFILE/HIGH DEFLECTION MOUNTS

Low-profile, high-deflection mounts are general purpose isolators for applications in ground vehicles or transit cases where high amplitude vibration and shock loading is expected. Low-profile, high-deflection mounts are resistant to a wide range of environmental conditions and are ideally suited for the isolation of electronic equipment in off-road and heavy duty service.

Features:

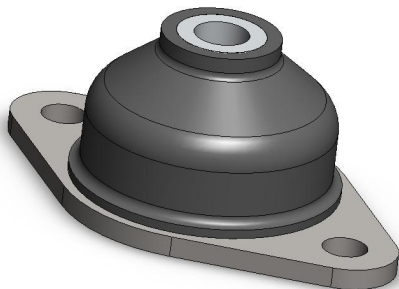
- Lightweight, low-profile design
- Efficiently isolates vibration in all directions
- 2:1 Axial to Radial spring rate
- Survives 30G 11ms ½ sine shock input at rated load

Low-profile, high-deflection mounts are available in two sizes:

- 2805 size: 5 load ratings from 2.5 to 10 lb
- 2806 size: 3 load ratings from 2 to 10 lb

Applicable Military Specifications:

- MIL-STD-810



VIB2805



VIB2806

LOW PROFILE/HIGH DEFLECTION VIB2805 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +180 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 2.5 – 10 lb

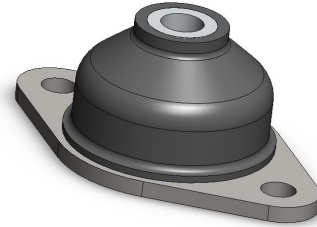
Axial-Radial Stiffness Ratio: 2:1

Part Weight: 0.2 oz.

Materials:

Core and Base Plate: Aluminum alloy 6061-T6

Elastomer: Neoprene

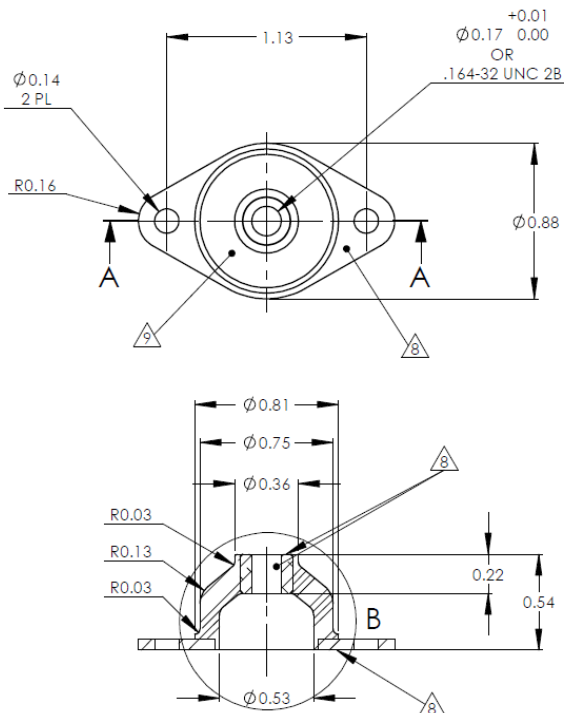
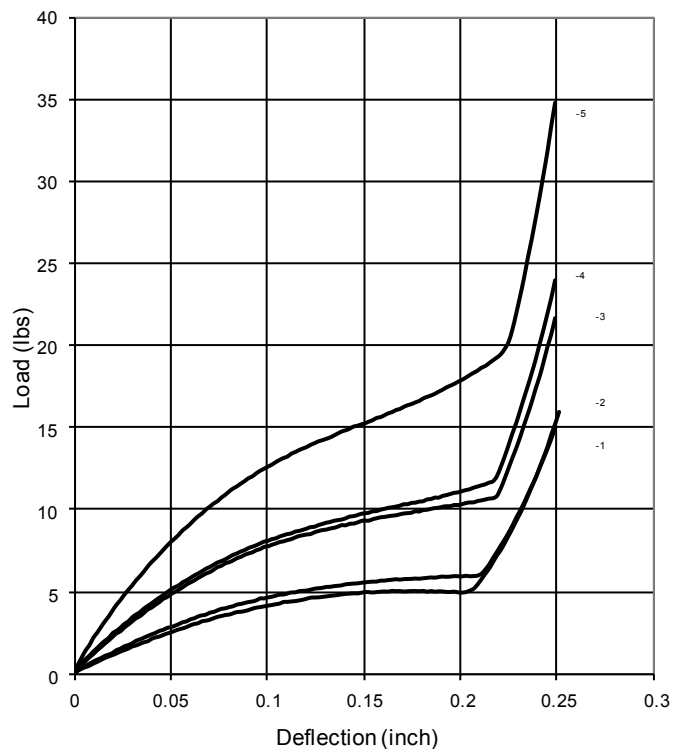


Performance Characteristics

Part No.	Color Code	Max. Static Load (Axial)	Max. Static Load (Radial)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
		Lbs	Lbs		lb/in	N/mm	lb/in	N/mm
VIB2805-1	Blue	2.50	1.40	14	50	9	25	5
VIB2805-2	Red	3.75	1.90		75	14	38	7
VIB2805-3	Green	4.25	2.75	16	111	20	55	10
VIB2805-4	Yellow	6.50	3.75		170	31	85	15
VIB2805-5	White	10.0	6.25		261	47	130	23

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
F_n: Natural Frequency at actual load (Hz)
F_{nn}: Nominal Natural Frequency (Hz)
P_r: Rated load
P_a: Actual load

Typical Load vs. Deflection



LOW PROFILE/HIGH DEFLECTION VIB2806 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +180 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 2 – 10 lb

Axial-Radial Stiffness Ratio: 2:1

Part Weight: 0.5 oz.

Materials:

Core and Base Plate: Aluminum alloy 6061-T6

Elastomer: Neoprene



Performance Characteristics

Part No.	Color Code	Max. Static Load (Axial)	Max. Static Load (Radial)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
		Lbs	Lbs		lb/in	N/mm	lb/in	N/mm
VIB2806-1	Blue	2.0	0.75	12	29	5	15	3
VIB2806-2	Red	3.0	1.50		44	8	22	4
VIB2806-3	Green	5.0	2.25		73	13	37	7
VIB2806-4	Yellow	7.5	4.0		110	20	55	10
VIB2806-5	White	10.0	5.5		147	27	74	14

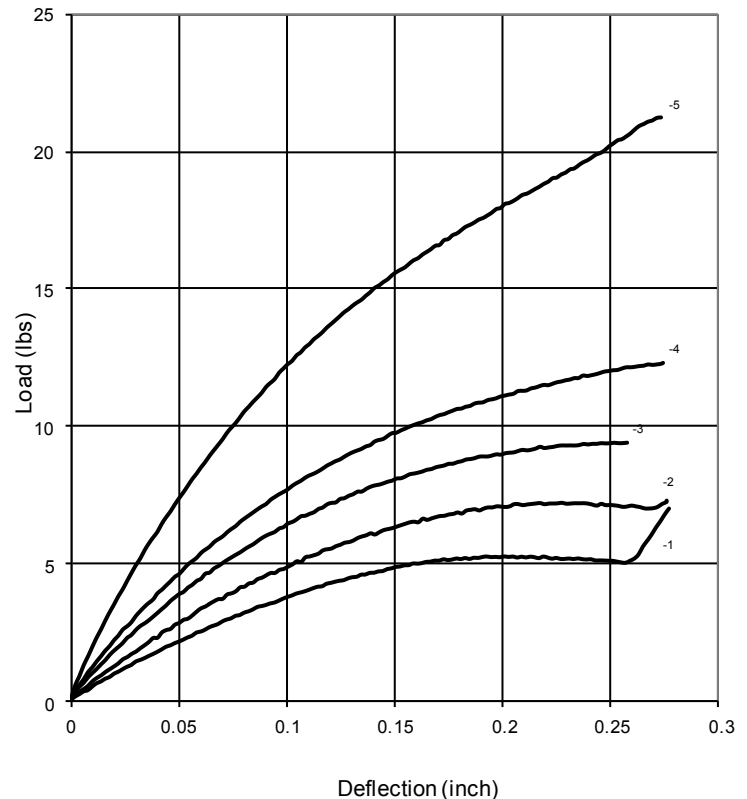
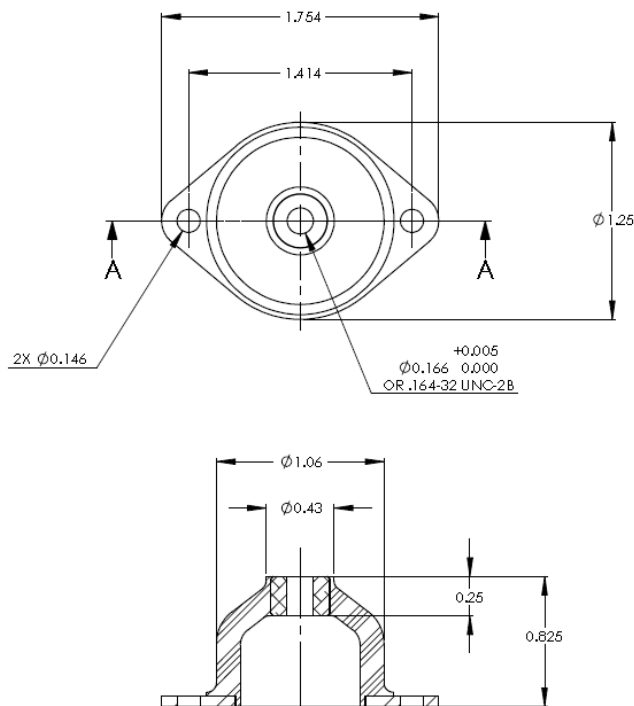
*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nm} \sqrt{P_r / P_a}$$

Where:

F_n: Natural Frequency at actual load (Hz)F_{nm}: Nominal Natural Frequency (Hz)P_r: Rated loadP_a: Actual load

Typical Load vs. Deflection



BUBBLE MOUNTS

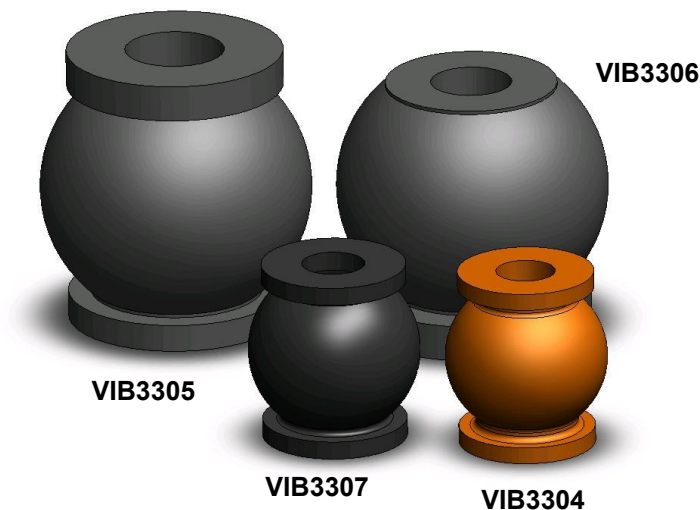
Bubble mounts are lightweight, general purpose vibration isolators for applications in electronics enclosures, industrial machinery or medical products. They are a low-cost, all elastomer solution for low and mid frequency noise and vibration applications.

Features:

- Compact, lightweight design
- All elastomer construction
- Wide load range
- Efficiently isolates vibration in all directions

Bubble mounts are available in four sizes:

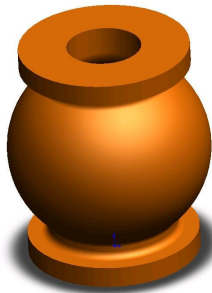
- 3304 size: 3 load ratings from 0.5 to 2 lb
- 3305 size: 4 load ratings from 3.5 to 9 lb
- 3306 size: 4 load ratings from 3.5 to 9 lb
- 3707 size: 4 load ratings from 0.6 to 3 lb



BUBBLE MOUNTS VIB3304 SERIES

PRODUCT SPECIFICATIONS

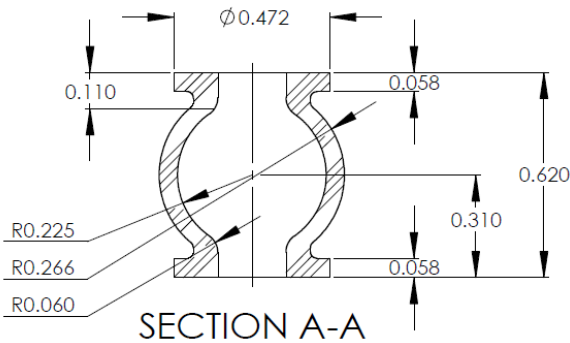
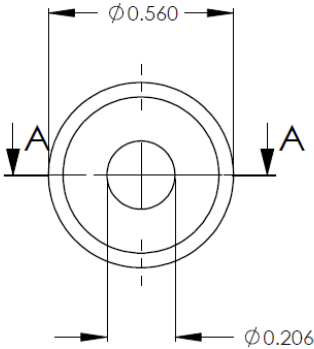
Operating Temperature: -67 to +300 F
Maximum Transmissibility at Resonance: 4.0
Load Capacity: 0.5 – 2.0 lb
Axial-Radial Stiffness Ratio: 3:1
Part Weight: 0.1 oz.
Materials: All Elastomer



Performance Characteristics

Part Number	Static Load Range	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
	lbs		lb/in	N/mm	lb/in	N/mm	
VIB3304-1	0.3—0.5	12	7.4	1.3	2.6	0.5	Red
VIB3304-2	0.5—1.0		14.7	2.6	5.1	0.9	Blue
VIB3304-3	1.0—2.0		29.4	5.2	10.2	1.8	Orange

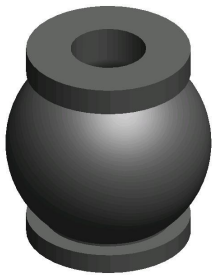
*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



BUBBLE MOUNTS VIB2305 SERIES

PRODUCT SPECIFICATIONS

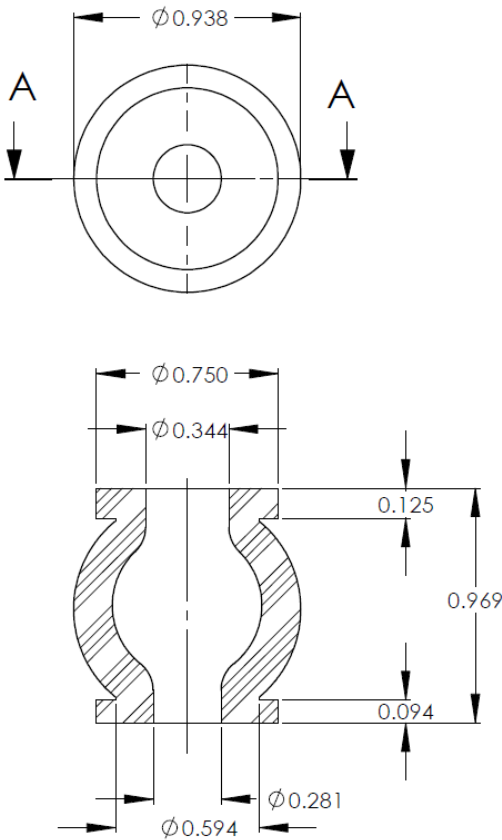
Operating Temperature: -20 to +200 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 3.5 – 9 lb
Axial-Radial Stiffness Ratio: 4:1
Part Weight: 0.5 oz.
Materials: All Elastomer



Performance Characteristics

Part Number	Static Load Range	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
	lbs		lb/in	N/mm	lb/in	N/mm	
VIB2305-1	1.3—3.5	12	51	9.0	12.8	2.2	Yellow & White
VIB2305-2	2.3—4.5		66	11.7	16.5	2.9	Purple & White
VIB2305-3	3.0—6.0		88	15.6	22	3.9	Green & White
VIB2305-4	4.5—9.0		132	23.5	33	5.9	Blue & White

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



BUBBLE MOUNTS VIB2306 SERIES

PRODUCT SPECIFICATIONS

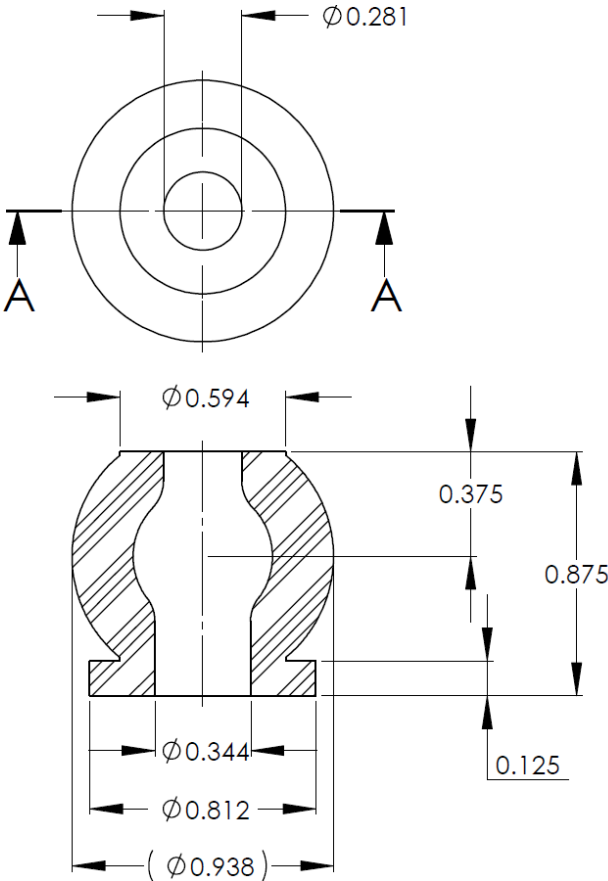
Operating Temperature: -20 to +200 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 3.5 – 9 lb
Axial-Radial Stiffness Ratio: 4:1
Part Weight: 0.5 oz.
Materials: All Elastomer



Performance Characteristics

Part Number	Static Load Range	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
	lbs		lb/in	N/mm	lb/in	N/mm	
VIB2306-1	1.3—3.5	12	51	9.0	12.8	2.2	Yellow & White
VIB2306-2	2.3—4.5		66	11.7	16.5	2.9	Purple & White
VIB2306-3	3.0—6.0		88	15.6	22	3.9	Green & White
VIB2306-4	4.5—9.0		132	23.5	33	5.9	Blue & White

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
F_n: Natural Frequency at actual load (Hz)
F_{nn}: Nominal Natural Frequency (Hz)
P_r: Rated load
P_a: Actual load



BUBBLE MOUNTS VIB2307 SERIES

PRODUCT SPECIFICATIONS

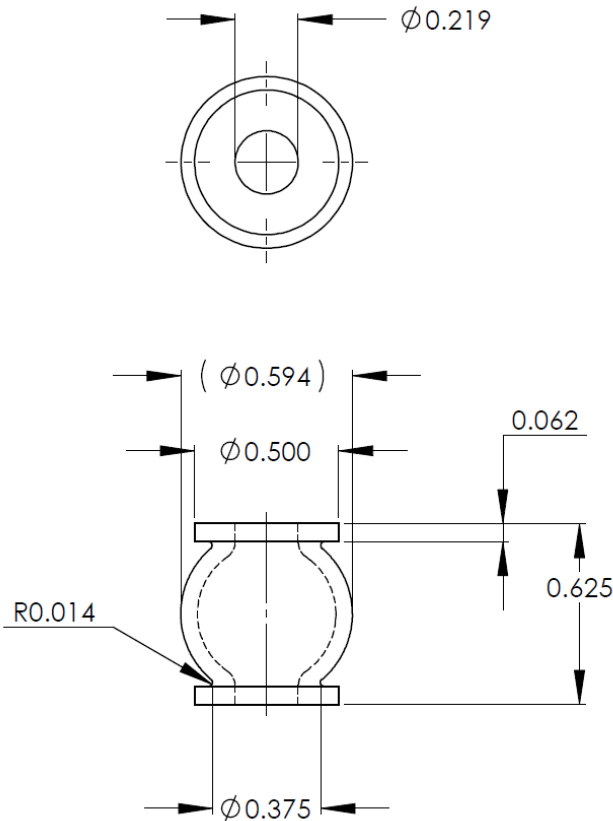
Operating Temperature: -20 to +200 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 3.5 – 9 lb
Axial-Radial Stiffness Ratio: 4:1
Part Weight: 0.5 oz.
Materials: All Elastomer



Performance Characteristics

Part Number	Static Load Range	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
	lbs		lb/in	N/mm	lb/in	N/mm	
VIB2307-1	0.4—0.7	10	7.1	1.3	2.5	0.4	Orange & White
VIB2307-2	0.6—1.2		12.2	2.2	4.3	0.8	Red & White
VIB2307-3	0.8—1.6		16.3	2.9	5.7	1.0	Yellow & White
VIB2307-4	1.3—2.6		26.5	4.7	9.3	1.6	Green & White
VIB2307-5	1.6—3.2		32.6	5.8	11.4	2.0	Blue & White

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
F_n: Natural Frequency at actual load (Hz)
F_{nn}: Nominal Natural Frequency (Hz)
P_r: Rated load
P_a: Actual load



ALL ELASTOMER RING & BUSHING MOUNTS

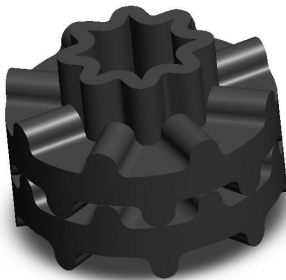
All-elastomer ring and bushing isolators are versatile, low cost mounts that can satisfy many vibration control problems. They are lightweight, rugged and can be integrated directly into structural components. Multiple isolators can be stacked in parallel for greater load carry capability or in series to increase deflection capability. Standard material offering is natural rubber, other materials are available upon request.

Features:

- Compact, lightweight design
- Fail-safe design when used with snubbing washers
- Efficiently isolates vibration in all directions

All elastomer mounts are available in four sizes with load ratings from 4 to 350 lbs.

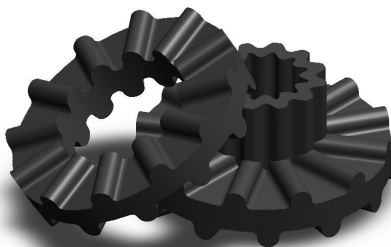
- 1401 Size: Load ratings from 4 to 12 lb
- 1402 Size: Load ratings from 20 to 35 lb
- 1403 Size: Load ratings from 35 to 75 lb
- 1404 Size: Load ratings from 120 to 350 lb



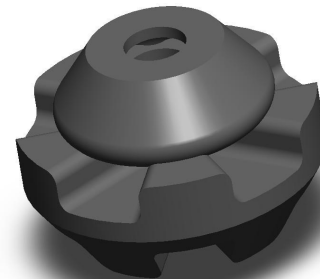
VIB1401



VIB1403



VIB1402

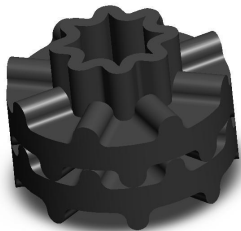


VIB1404

ALL ELASTOMER RING & BUSHING MOUNTS VIB1401 SERIES

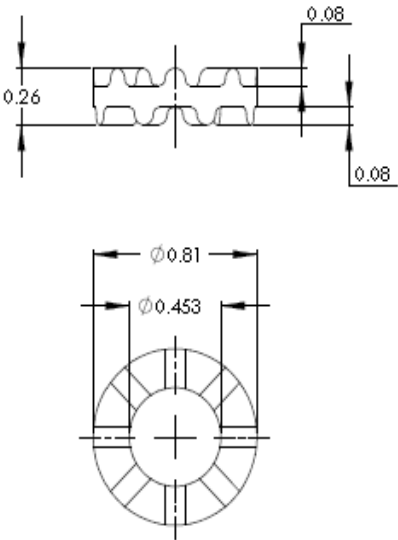
PRODUCT SPECIFICATIONS

Operating Temperature: -40 to +180 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 6 – 12 lb
Axial-Radial Stiffness Ratio: 1:0.4
Part Weight: Less than 1 oz
Materials: Elastomer: Natural Rubber



All-elastomer ring & bushings are intended to be mounted in an axial orientation.

RING

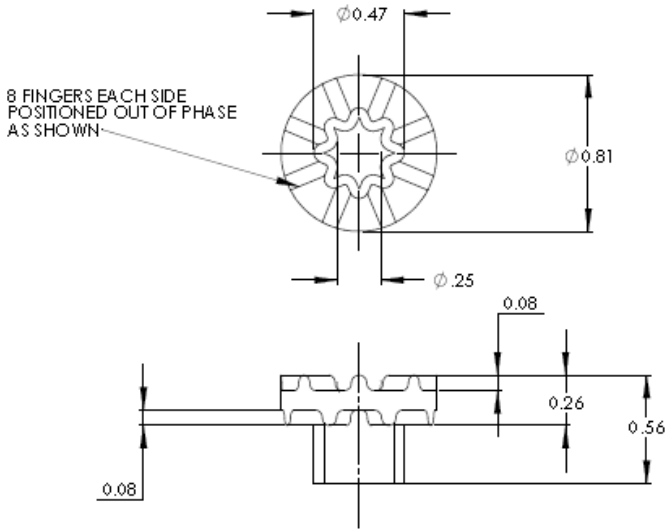


Performance Characteristics

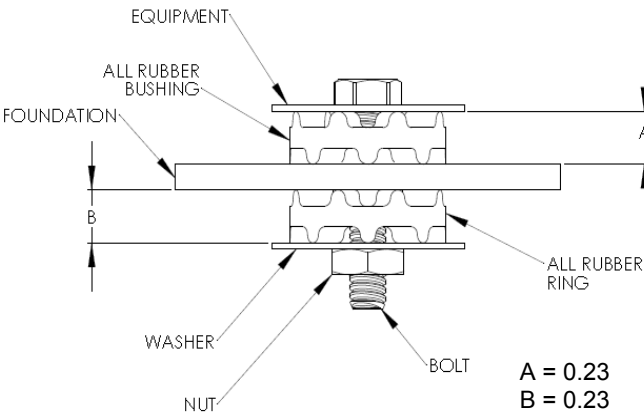
Assembly	Min Load	Max Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs	lbs	Hz	lb/in	N/mm	lb/in	N/mm
VIB1401-1R/ VIB1401-1B	1	4	18	132	23	53	9
VIB1401-2R/ VIB1401-2B	2	6		198	35	79	14
VIB1401-3R/ VIB1401-3B	3	8		265	47	106	19
VIB1401-4R/ VIB1401-4B	5	12		397	70	159	28

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load

BUSHING



TYPICAL INSTALLATION

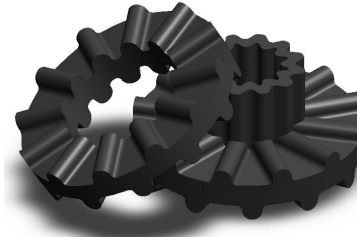


ALL ELASTOMER RING & BUSHING MOUNTS VIB1402 SERIES

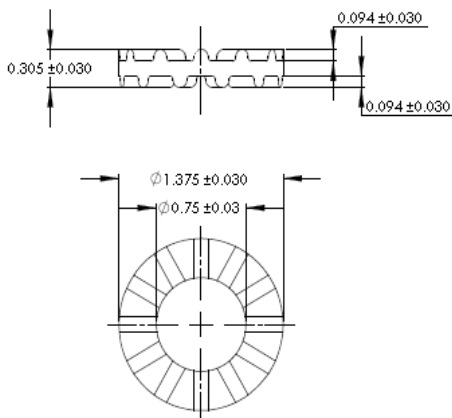
PRODUCT SPECIFICATIONS

Operating Temperature: -40 to +180 F
 Maximum Transmissibility at Resonance: 10.0
 Load Capacity: 20 – 35 lb
 Axial-Radial Stiffness Ratio: 1:0.4
 Part Weight: Less than 1 oz
 Materials: Elastomer: Natural Rubber

All-elastomer ring & bushings are intended to be mounted in an axial orientation.



RING



Performance Characteristics

Assembly	Min Load	Max Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs	lbs	Hz	lb/in	N/mm	lb/in	N/mm
VIB1402-1R/ VIB1402-1B	6	20	14	400	70	160	28
VIB1402-2R/ VIB1402-2B	7	23		460	80	184	32
VIB1402-3R/ VIB1402-3B	10	25	19	920	158	368	64
VIB1402-4R/ VIB1402-4B	15	35		1290	226	516	90

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:

$$F_n = F_{nn} \cdot \sqrt{P_r / P_a}$$

Where:

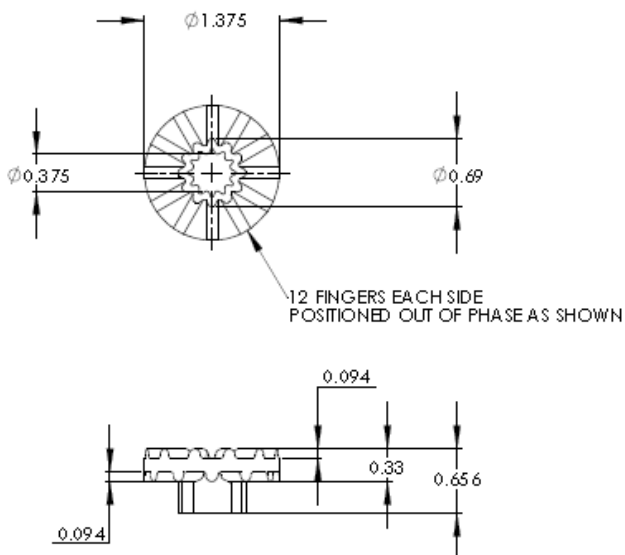
Fn: Natural Frequency at actual load (Hz)

Fnn: Nominal Natural Frequency (Hz)

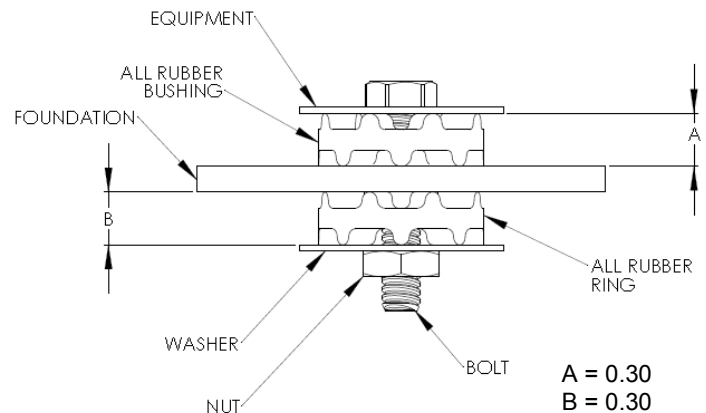
Pr: Rated load

Pa: Actual load

BUSHING



TYPICAL INSTALLATION



ALL ELASTOMER RING & BUSHING MOUNTS VIB1403 SERIES

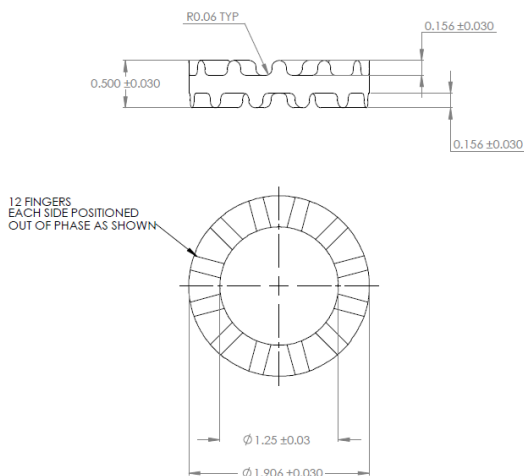
PRODUCT SPECIFICATIONS

Operating Temperature: -40 to +180 F
 Maximum Transmissibility at Resonance: 10.0
 Load Capacity: 35 – 75 lb
 Axial-Radial Stiffness Ratio: 1:0.4
 Part Weight: Less than 1 oz
 Materials: Elastomer: Natural Rubber

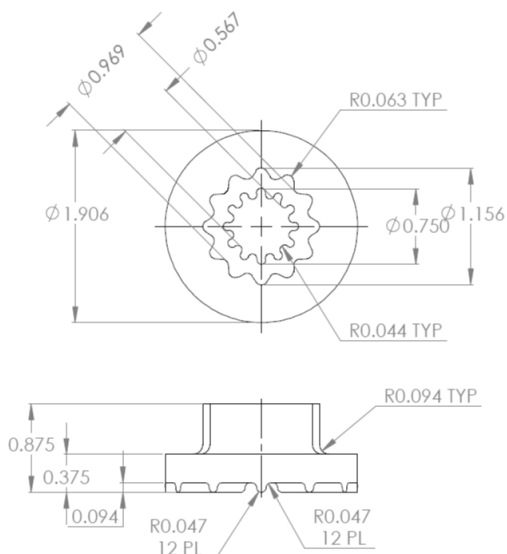
All-elastomer ring & bushings are intended to be mounted in an axial orientation.



RING



BUSHING



Performance Characteristics

Assembly	Min Load	Max Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs	lbs	Hz	lb/in	N/mm	lb/in	N/mm
VIB1403-1R/ VIB1403-1B	10	35	12	514	90	206	36
VIB1403-2R/ VIB1403-2B	20	50	12	735	129	294	51
VIB1403-3R/ VIB1403-3B	30	60	12	882	154	353	62
VIB1403-4R/ VIB1403-4B	40	75	14	1500	262	600	105

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

Where:

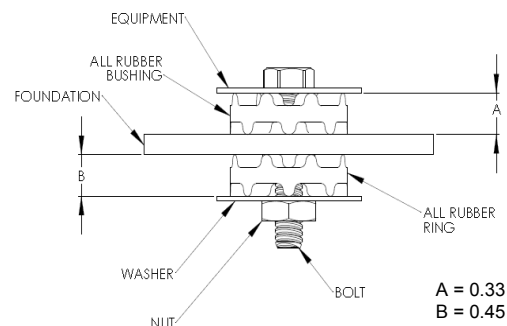
F_n: Natural Frequency at actual load (Hz)

F_{nn}: Nominal Natural Frequency (Hz)

P_r: Rated load

P_a: Actual load

TYPICAL INSTALLATION

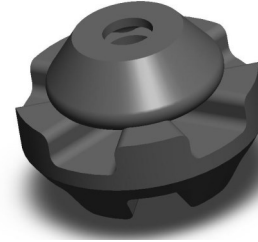


ALL ELASTOMER RING & BUSHING MOUNTS VIB1404 SERIES

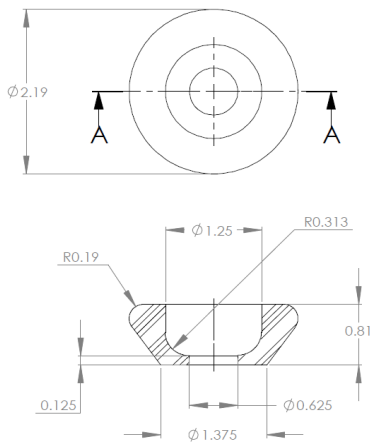
PRODUCT SPECIFICATIONS

Operating Temperature: -40 to +180 F
 Maximum Transmissibility at Resonance: 10.0
 Load Capacity: 120 – 350 lb
 Axial-Radial Stiffness Ratio: 1:0.3
 Part Weight: 3.4 oz
 Materials: Elastomer: Natural Rubber

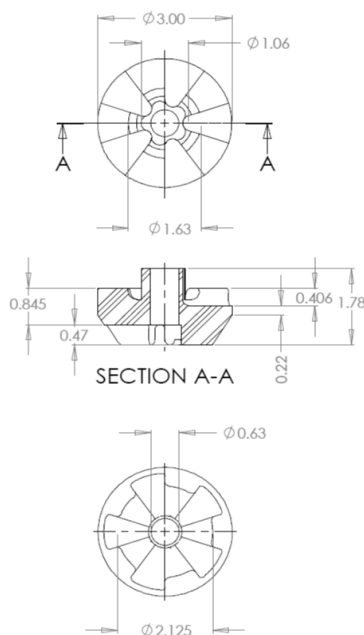
All-elastomer ring & bushings are intended to be mounted in an axial orientation.



RING



BUSHING

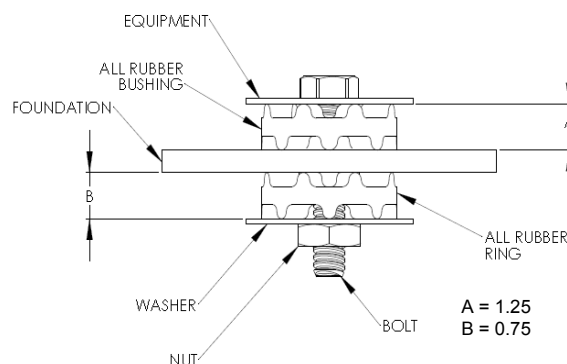


Performance Characteristics

Assembly	Min Load	Max Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs	lbs	Hz	lb/in	N/mm	lb/in	N/mm
VIB1404-1R/ VIB1404-1B	60	120	7	600	105	180	32
VIB1404-2R/ VIB1404-2B	110	160		800	140	240	42
VIB1404-3R/ VIB1404-3B	135	250	8	1630	285	490	86
VIB1404-4R/ VIB1404-4B	160	350		2285	400	686	120

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
 Where:
 Fn: Natural Frequency at actual load (Hz)
 Fnn: Nominal Natural Frequency (Hz)
 Pr: Rated load
 Pa: Actual load

TYPICAL INSTALLATION



RING & BUSHING MOUNTS

Ring and bushing isolators are versatile, low cost mounts that can satisfy many vibration control problems. They are rugged, low-cost isolators easily installed. Ring and bushing mounts are ideal for mounting engines, generators, pumps or other rotating equipment in harsh off-road or industrial applications. They are offered standard in neoprene rubber, other materials are available upon request.

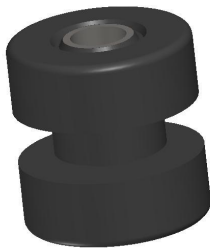
Features:

- Compact, lightweight design
- Fail-safe design when used with snubbing washers
- Efficiently isolates vibration in all directions

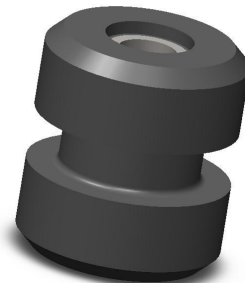
Ring and bushing mounts are available in five sizes with load ratings from 40 to 4,560 lbs.

- 2405 Size: Load ratings from 40 to 300 lb
- 2406 Size: Load ratings from 130 to 630 lb
- 2407 Size: Load ratings from 210 to 1330 lb
- 2408 Size: Load ratings from 270 to 2100 lb
- 2409 Size: Load ratings from 1140 to 4560 lb

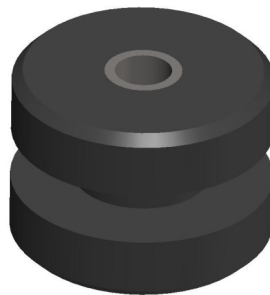
VIB2405



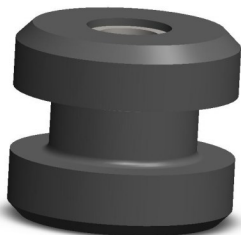
VIB2406



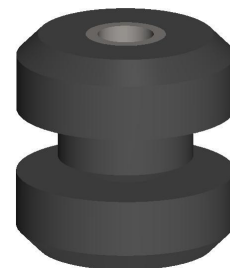
VIB2409



VIB2408



VIB2407



RING & BUSHING MOUNTS VIB2405 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +220 F

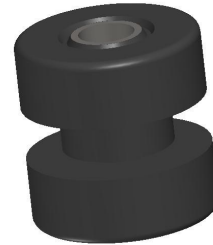
Maximum Transmissibility at Resonance: 10.0

Load Capacity: 40 – 300 lb

Axial-Radial Stiffness Ratio: 1:1.5

Part Weight:

Materials: Elastomer: Neoprene

Tube: DOM Tubing, ASTM A513, type V, class 1026
or equivalent

Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Max Radial Load	Radial Natural Frequency	Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lbs		lb/in	N/mm
VIB2405-1	40	15	1000	175	20	25	2000	350
VIB2405-2	90		2000	350	30		3100	544
VIB2405-3	140		3000	525	40		4200	737
VIB2405-4	250		5000	877	50		5200	912
VIB2405-5	300		7500	1316	60		6200	1090

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

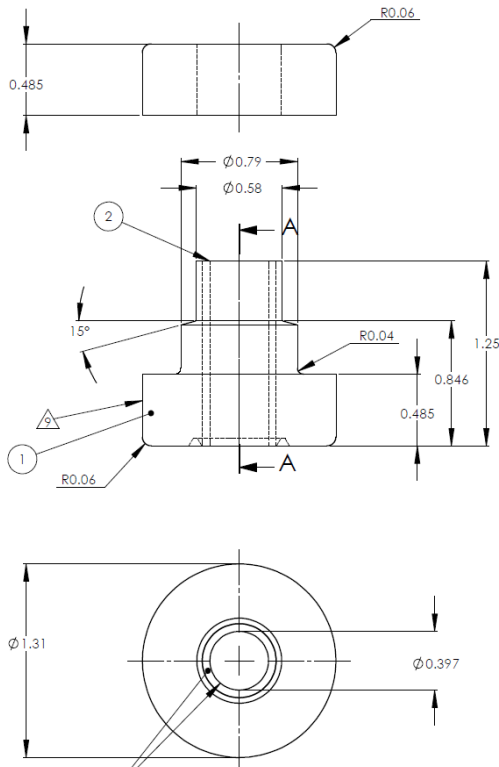
Where:

Fn: Natural Frequency at actual load (Hz)

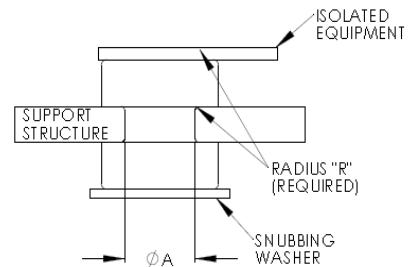
Fnn: Nominal Natural Frequency (Hz)

Pr: Rated load

Pa: Actual load



TYPICAL INSTALLATION



$$\text{Ø } A = 0.75$$

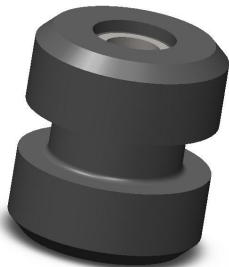
$$R = 0.04$$

$$T = 0.375 \text{ (Support Structure Thickness)}$$

RING & BUSHING MOUNTS VIB2406 SERIES

PRODUCT SPECIFICATIONS

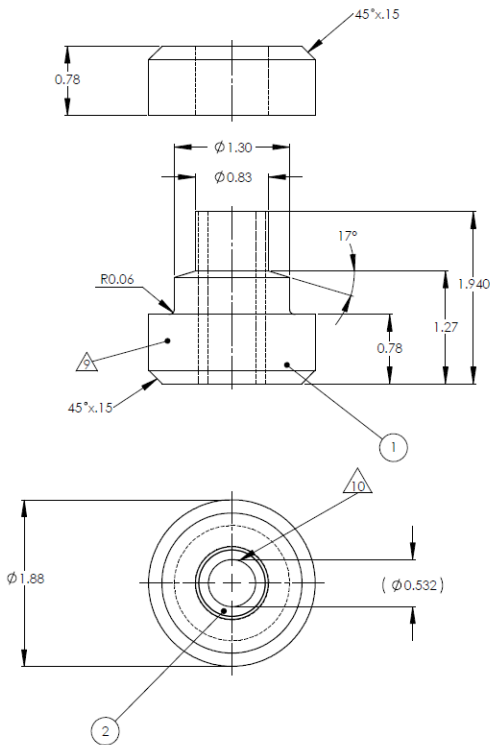
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 130 – 630 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: .31 lb
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



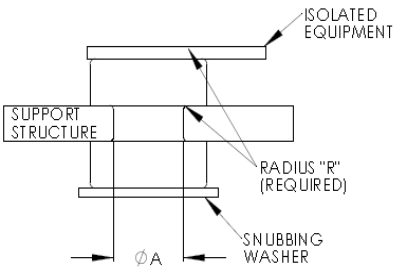
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Max Radial Load	Radial Natural Frequency	Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm			lb/in	N/mm
VIB2406-1	130	12	1860	326	50	20	2100	368
VIB2406-2	175		2500	438	65		2800	491
VIB2406-3	240		3400	596	90		4000	700
VIB2406-4	380		5400	947	165		7200	1263
VIB2406-5	630		9000	1579	280		12100	2120

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION

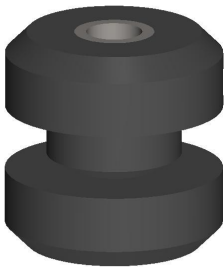


$\varnothing A = 1.25$
 $R = 0.06$
 $T = 0.563$ (Support Structure Thickness)

RING & BUSHING MOUNTS VIB2407 SERIES

PRODUCT SPECIFICATIONS

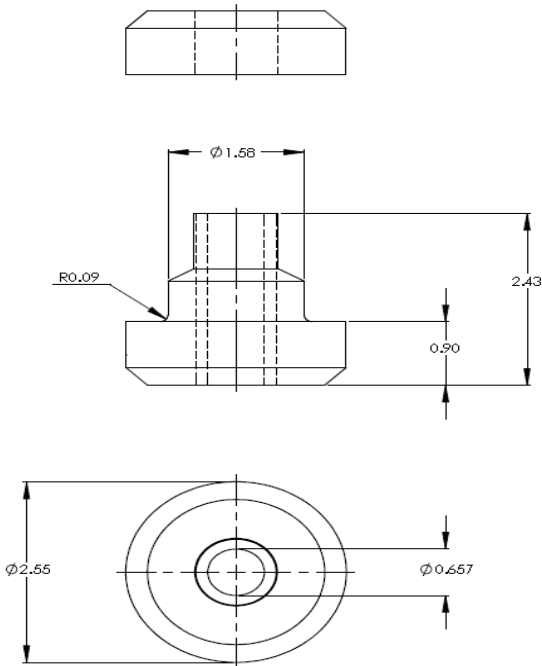
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 210 – 1330 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: .69 lb
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



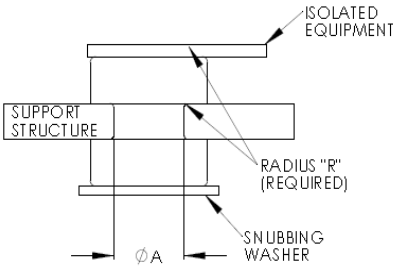
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Max Radial Load	Radial Natural Frequency	Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lbs		lb/in	N/mm
VIB2407-1	210	11	2500	439	90	20	2900	510
VIB2407-2	350		4100	720	140		4700	825
VIB2407-3	490		5800	1018	225		7500	1316
VIB2407-4	860		10100	1772	385		12800	2250
VIB2407-5	1330		15600	2737	690		22900	4020

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION

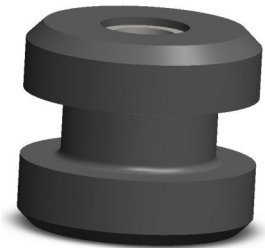


$\varnothing A = 1.50$
 $R = 0.09$
 $T = 0.875$ (Support Structure Thickness)

RING & BUSHING MOUNTS VIB2408 SERIES

PRODUCT SPECIFICATIONS

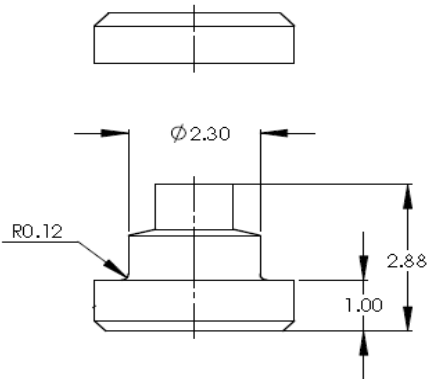
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 270 – 2100 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight: 1.47 lb
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



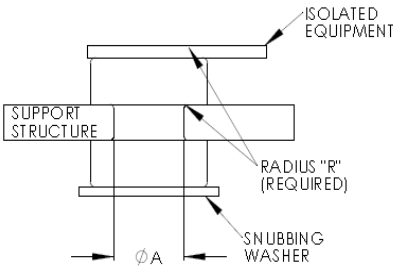
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Max Radial Load	Radial Natural Frequency	Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lbs		lb/in	N/mm
VIB2408-1	270	10	3000	526	135	15	3200	560
VIB2408-2	510		5700	1000	230		5500	965
VIB2408-3	770		8500	1490	345		8200	1440
VIB2408-4	1170		13000	2280	590		13900	2440
VIB2408-5	2100		23300	4090	975		23200	4070

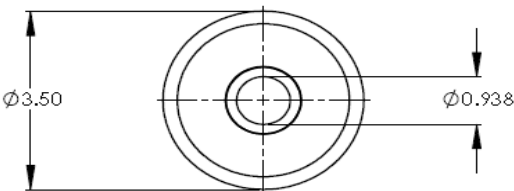
*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION



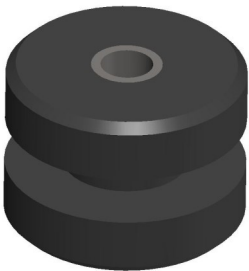
Ø A = 2.25
R = 0.12
T = 1.125 (Support Structure Thickness)



RING & BUSHING MOUNTS VIB2409 SERIES

PRODUCT SPECIFICATIONS

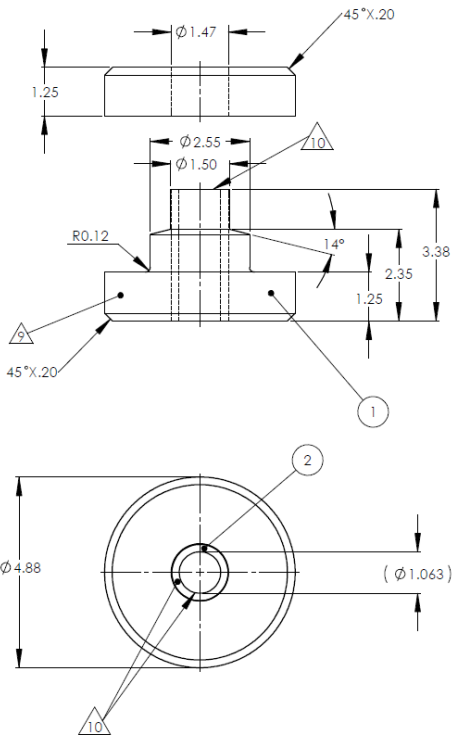
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 1140 – 4560 lb
Axial-Radial Stiffness Ratio: 2:1
Part Weight: 2.88 lb
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V,
class 1026 or equivalent



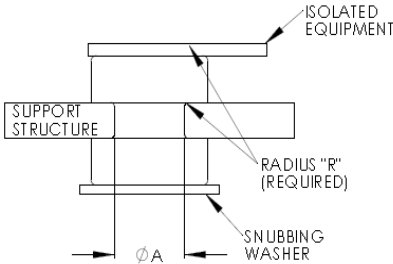
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Max Radial Load	Radial Natural Frequency	Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lbs		lb/in	N/mm
VIB2409-1	1140	10	11400	2000	240	15	5300	930
VIB2409-2	1930		19300	3386	340		7500	1315
VIB2409-3	2580		25800	4526	610		13600	2386
VIB2409-4	3540		35400	6210	890		19700	3456
VIB2409-5	4560		45600	8000	1410		31400	5508

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION

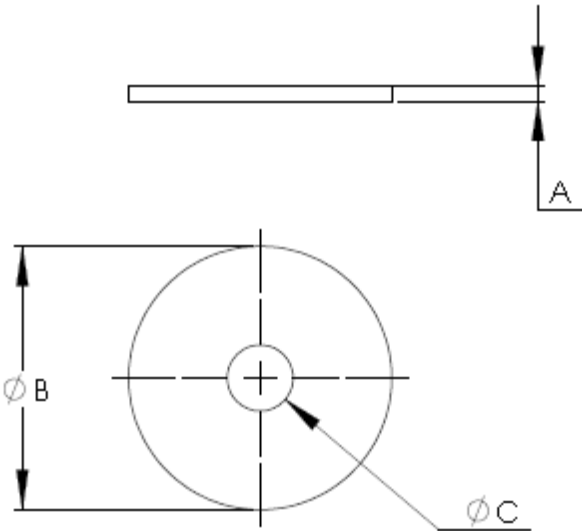


$\varnothing A = 2.50$
 $R = 0.12$
 $T = 1.250$ (Support Structure Thickness)

SNUBBING WASHERS

PRODUCT SPECIFICATIONS

Material: Steel per ASTM A1008/A1011
Finish: Zinc plated per ASTM B633, Type II, Class FE/ZN 12



Size	A (Thickness)	B (OD)	C (ID)	PART NO.
VIB2405	.090	1.56	.391	W10044-1
VIB2406	.134	2.13	.532	W10044-2
VIB2407	.188	2.81	.657	W10044-3
VIB2408	.250	3.88	.938	W10044-4
VIB2409	.375	5.25	1.063	W10044-5

BONDED TUBE MOUNTS

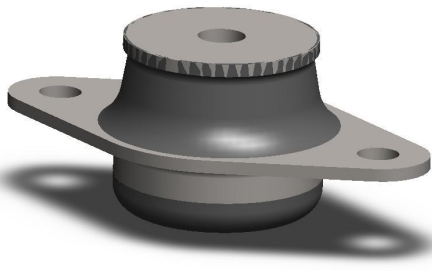
Bonded tube mounts are versatile, all attitude isolators that can satisfy many vibration control problems. They are rugged, compact isolators that offer high load carrying capability and versatile functionality. Bonded tube mounts are ideal for mounting engines, cabs or other equipment in truck, off highway or marine applications. They are offered standard in neoprene rubber with a black enamel paint finish, other materials and finishes are available upon request.

Features:

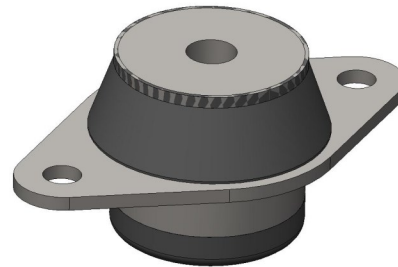
- Compact, lightweight design
- Fail-safe design when used with snubbing washers
- Efficiently isolates vibration in all directions

Bonded tube mounts are available in four sizes with load ratings from 100 to 1,500 lbs:

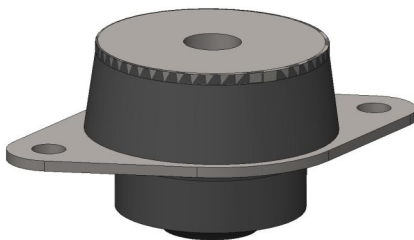
- 2107 Size: Load ratings from 100 to 330 lb
- 2108 Size: Load ratings from 180 to 570 lb
- 2110 Size: Load ratings from 320 to 1020 lb
- 2112 Size: Load ratings from 460 to 1500 lb



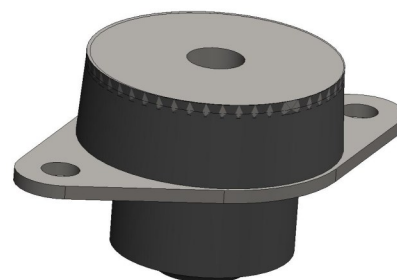
VIB2107



VIB2108



VIB2110

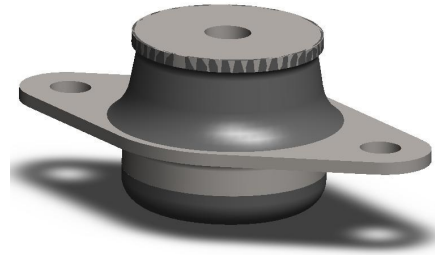


VIB2112

BONDED TUBE MOUNTS VIB2107 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F
 Maximum Transmissibility at Resonance: 10.0
 Load Capacity: 100 – 330 lb
 Axial-Radial Stiffness Ratio: 1:1
 Part Weight: 0.5 lb
 Materials: Core & Flange: C.R.S, SAE 1010 or
 equiv. black acrylic painted.
 Elastomer: Neoprene



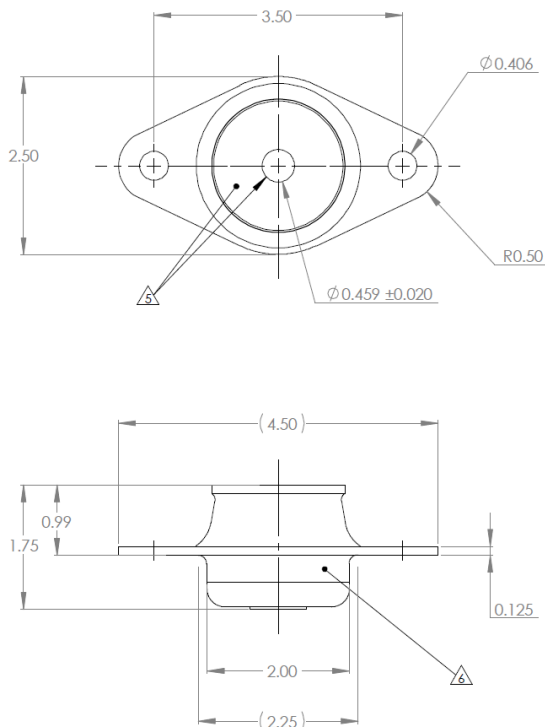
Recommended installation:

Maximum bolt torque: 80 ft-lb (dry) (Grade 8)
 Snubbing washer: W10046-3
 2.00 OD x 0.450 ID x .125 THK

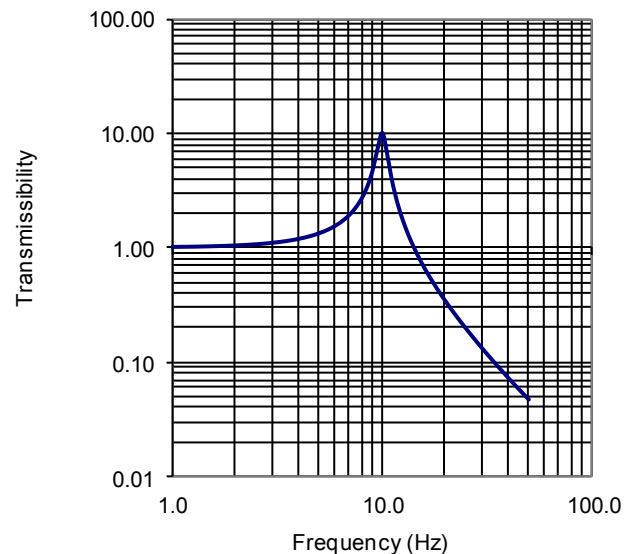
Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Max Axial Static Load (lbs)	Max Radial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
					lb/in	N/mm	lb/in	N/mm	
VIB2107-1	100	150	100	10	1020	179	1020	179	Red & White
VIB2107-2	120	180	120		1224	214	1224	214	Orange & White
VIB2107-3	150	225	150		1530	268	1530	268	Yellow & White
VIB2107-4	180	270	180		1836	321	1836	321	Green & White
VIB2107-5	220	330	220		2244	393	2244	393	Blue & White

*Fn at max rated load
 and .036 inch DA input
 To correct for loads lower
 than rated load use:
 $F_n = F_{nn} \sqrt{P_r / P_a}$
 Where:
 F_n : Natural Frequency at
 actual load (Hz)
 F_{nn} : Nominal Natural Fre-
 quency (Hz)
 P_r : Rated load
 P_a : Actual load



Transmissibility vs. Frequency



BONDED TUBE MOUNTS VIB2108 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 180 – 570 lb

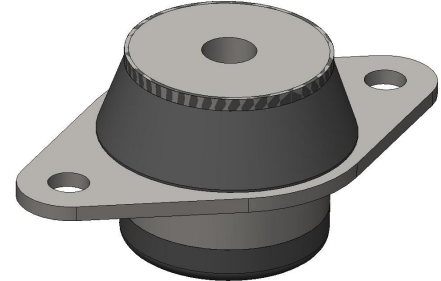
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 0.85 lb

Materials: Core & Flange: C.R.S, SAE 1010 or equiv. black acrylic painted.

Elastomer: Neoprene

Recommended installation: Maximum bolt torque: 120 ft-lb (dry) (Grade 8)



Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Max Axial Static Load (lbs)	Max Radial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
				Hz	lb/in	N/mm	lb/in	N/mm	
VIB2108-1	180	270	180	10	1840	322	1840	322	Red & White
VIB2108-2	220	330	220		2240	392	2240	392	Orange & White
VIB2108-3	260	390	260		2650	464	2650	464	Yellow & White
VIB2108-4	320	480	320		3260	570	3260	570	Green & White
VIB2108-5	380	570	380		3870	677	3870	677	Blue & White

*Fn at max rated load and .036 inch DA input

To correct for loads lower than rated load use:

$$F_n = F_{nn} \sqrt{P_r / P_a}$$

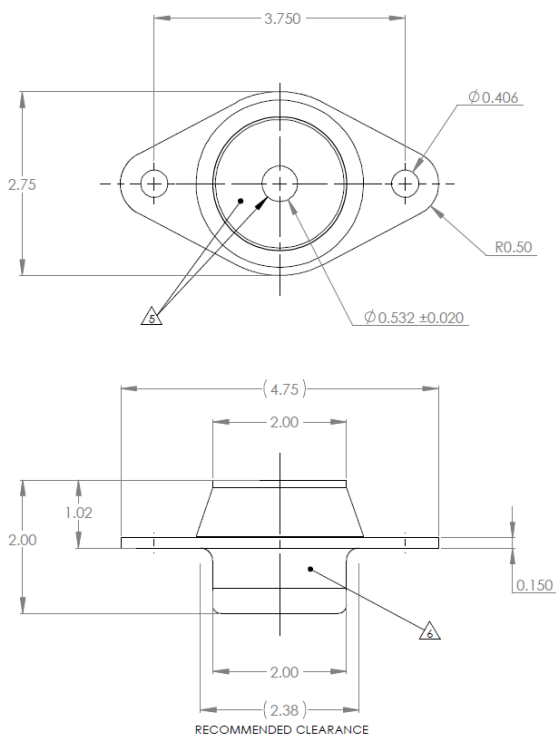
Where:

F_n : Natural Frequency at actual load (Hz)

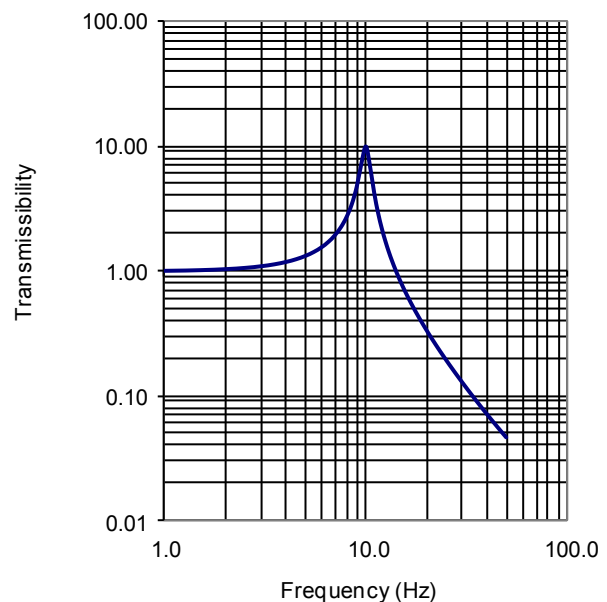
F_{nn} : Nominal Natural Frequency (Hz)

P_r : Rated load

P_a : Actual load



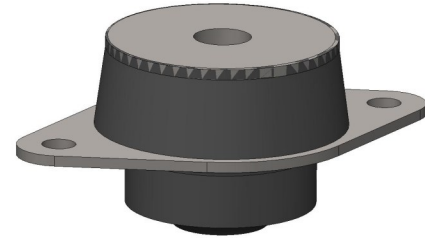
Transmissibility vs. Frequency



BONDED TUBE MOUNTS VIB2110 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F
 Maximum Transmissibility at Resonance: 10.0
 Load Capacity: 320 – 1020 lb
 Axial-Radial Stiffness Ratio: 1:1
 Part Weight: 1.2 lb
 Materials: Core & Flange: C.R.S, SAE 1010 or equiv. black acrylic painted.
 Elastomer: Neoprene

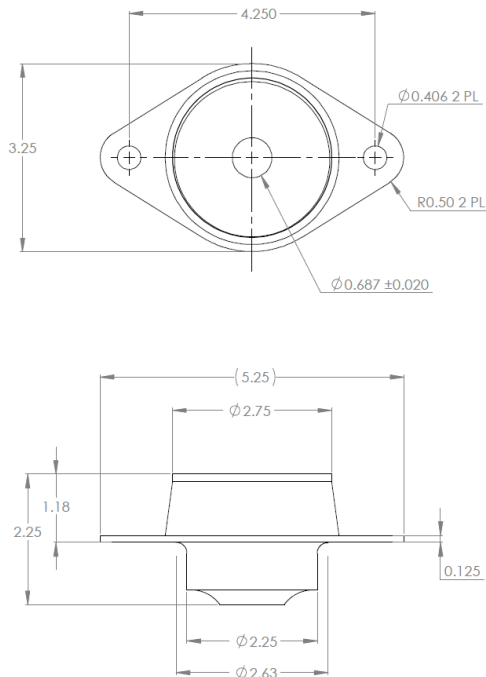


Recommended installation: Maximum bolt torque: 240 ft-lb (dry)
 (Grade 8)

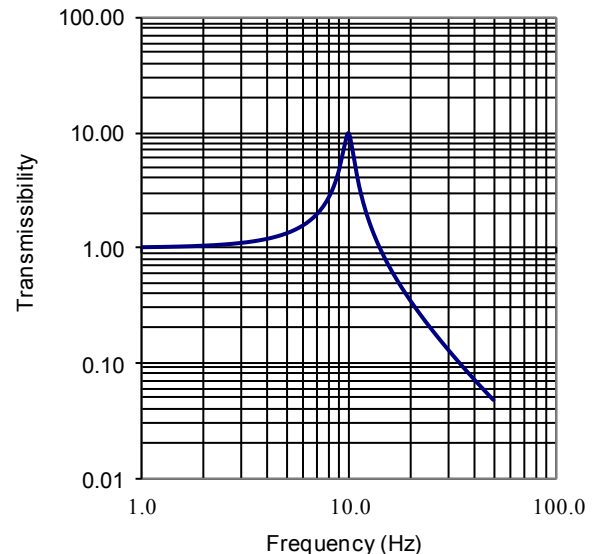
Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Max Axial Static Load (lbs)	Max Radial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
				Hz	lb/in	N/mm	lb/in	N/mm	
VIB2110-1	320	380	320	10	3260	570	3260	570	Red & White
VIB2110-2	380	570	380		3880	680	3880	680	Orange & White
VIB2110-3	460	690	460		4690	820	4680	820	Yellow & White
VIB2110-4	560	840	560		5710	1000	5710	1000	Green & White
VIB2110-5	680	1020	680		6940	1210	6940	1210	Blue & White

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
 Where:
 F_n : Natural Frequency at actual load (Hz)
 F_{nn} : Nominal Natural Frequency (Hz)
 P_r : Rated load
 P_a : Actual load



Transmissibility vs. Frequency





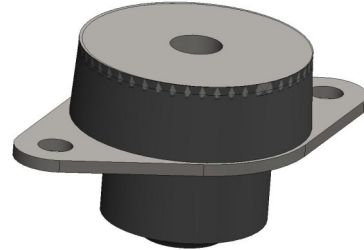
BONDED TUBE MOUNTS VIB2112 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F
 Maximum Transmissibility at Resonance: 10.0
 Load Capacity: 460 – 1500 lb
 Axial-Radial Stiffness Ratio: 1:1
 Part Weight: 2.4 lb
 Materials: Core & Flange: C.R.S, SAE 1010 or equiv. black acrylic painted.

Elastomer: Neoprene

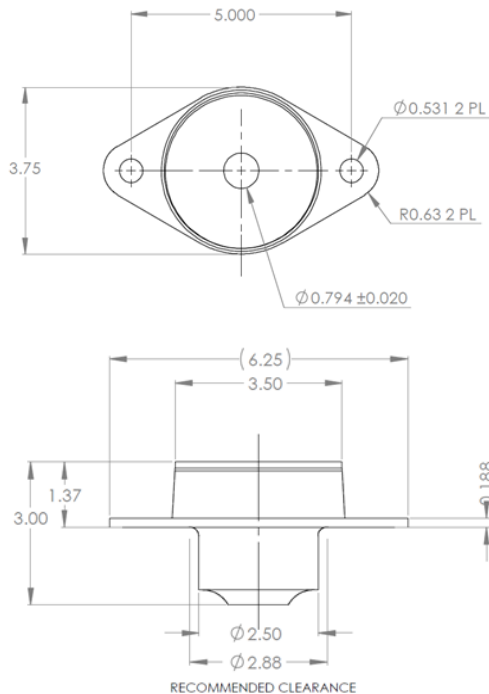
Recommended installation: Maximum bolt torque: 380 ft-lb (dry)



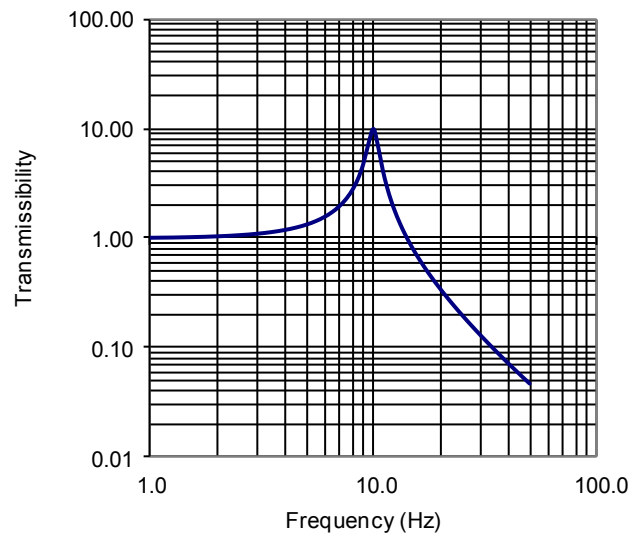
Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Max Axial Static Load (lbs)	Max Radial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
				Hz	lb/in	N/mm	lb/in	N/mm	
VIB2112-1	460	690	450	10	4690	820	4690	820	Red & White
VIB2112-2	560	840	560		5710	1000	5710	1000	Orange & White
VIB2112-3	680	1020	680		6340	1110	6340	1110	Yellow & White
VIB2112-4	830	1245	830		8470	1480	8470	1480	Green & White
VIB2112-5	1000	1500	1000		10200	1785	10200	1785	Blue & White

*Fn at max rated load and .036 inch DA input
 To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
 Where:
 F_n : Natural Frequency at actual load (Hz)
 F_{nn} : Nominal Natural Frequency (Hz)
 P_r : Rated load
 P_a : Actual load



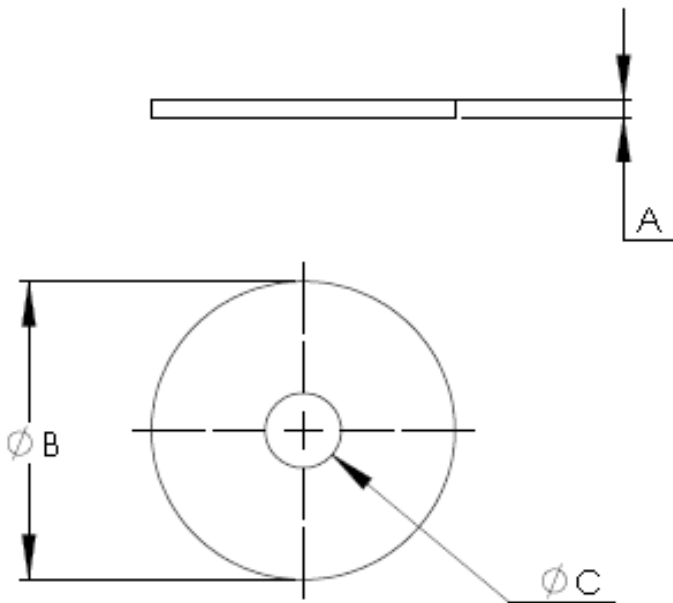
Transmissibility vs. Frequency



SNUBBING WASHERS

PRODUCT SPECIFICATIONS

Material: Steel per ASTM A1008/A1011
Finish: Zinc plated per ASTM B633, Type II, Class FE/ZN 12



Size	A (Thickness)	B (OD)	C (ID)	PART NO.
VIB2107	.125	2.00	.450	W10046-3
VIB2108	.125	2.00	.510	W10046-4
VIB2110	.150	2.25	.635	W10046-5
VIB2112	.188	2.50	.780	W10046-6

HIGH-RATIO MOUNTS

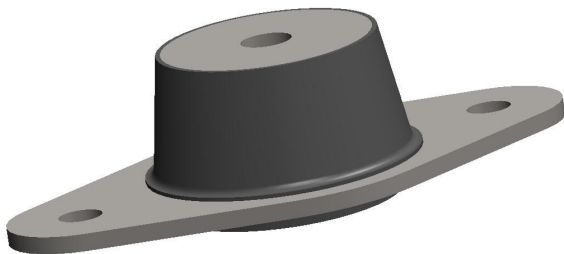
High-Ratio mounts are lightweight mounts that provide superior vibration performance. They are compact lightweight isolators that are ideally suited for isolating small engines, compressors and rotating machinery in both on and off road applications. They are offered standard in neoprene rubber with a black enamel paint finish and available in other materials and finishes upon request.

Features:

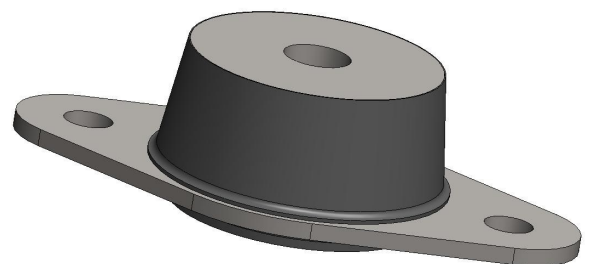
- Compact, lightweight design
- Fail-safe design when used with snubbing washers
- Efficiently isolates vibration in all directions

High-ratio mounts are available in three sizes with load ratings from 50 to 1,020 lbs.

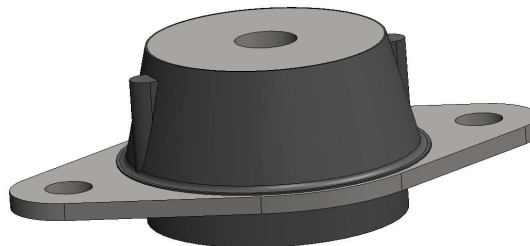
- 2109 Size: Load ratings from 50 to 300 lb
- 2111 Size: Load ratings from 100 to 420 lb
- 2119 Size: Load ratings from 320 to 1020 lb



VIB2109



VIB2111

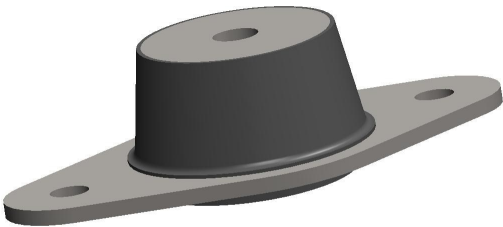


VIB2119

HIGH-RATIO MOUNTS VIB2109 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 50 – 300 lb
Axial-Radial Stiffness Ratio: 4:1
Part Weight: 0.42 lb
Materials: Core & Flange: C.R.S, SAE 1010 or equiv.
black acrylic painted.
Elastomer: Neoprene

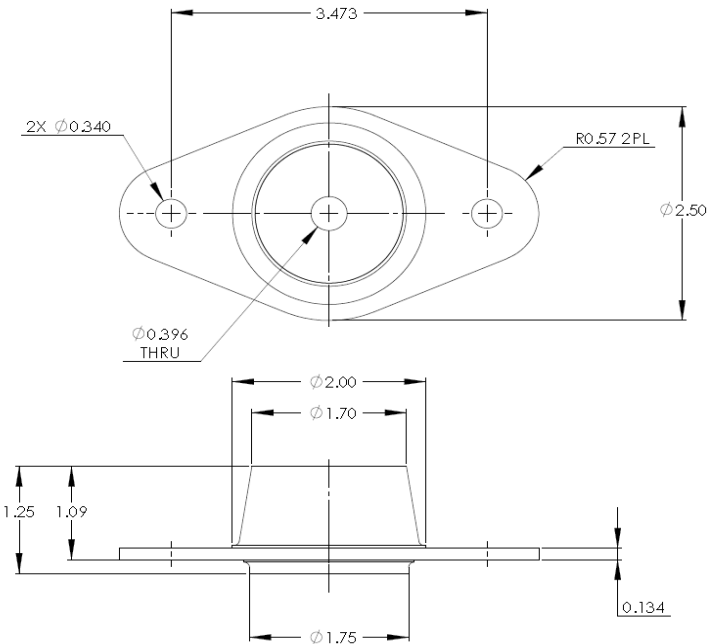


Recommended installation:
Maximum bolt torque: 45 ft-lb (dry) (Grade 8)

Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
		Hz	lb/in	N/mm	lb/in	N/mm	
VIB2109-1	50	10	510	90	128	23	Red
VIB2109-3	90		920	160	228	40	White
VIB2109-5	150		1530	268	383	68	Blue
VIB2109-7	215		2190	384	550	96	Purple
VIB2109-9	300		3060	536	765	134	Grey

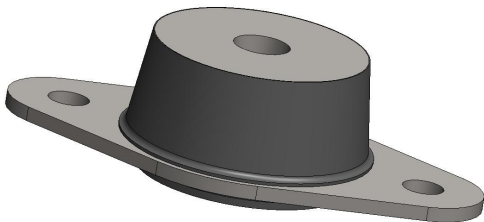
*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



HIGH-RATIO MOUNTS VIB2111 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 100 – 420 lb
Axial-Radial Stiffness Ratio: 4:1
Part Weight: 0.5 lb
Materials:
Core & Flange: C.R.S, SAE 1010 or equiv. black acrylic painted.
Elastomer: Neoprene

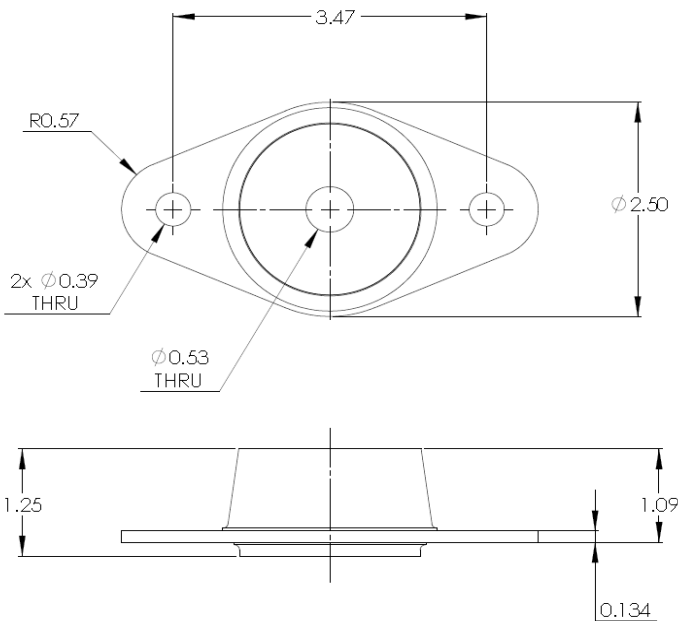


Recommended installation:
Maximum bolt torque: 120 ft-lb (dry) (Grade 8)

Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
		Hz	lb/in	N/mm	lb/in	N/mm	
VIB2111-2	100	10	1020	180	255	45	Red
VIB2111-4	155		1580	277	395	69	White
VIB2111-6	230		2350	410	588	102	Blue
VIB2111-8	320		3260	570	815	143	Purple
VIB2111-10	420		4280	750	1070	187	Grey

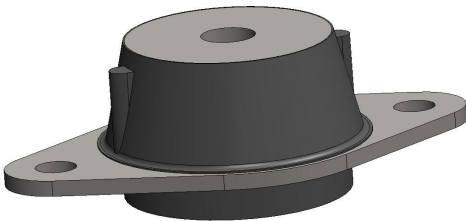
*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
F_n: Natural Frequency at actual load (Hz)
F_{nn}: Nominal Natural Frequency (Hz)
P_r: Rated load
P_a: Actual load



HIGH RATIO MOUNTS VIB2119 SERIES

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 320 – 1020 lb
Axial-Radial Stiffness Ratio: 4:1
Part Weight: 0.75 lb
Materials:
Core & Flange: C.R.S, SAE 1010 or equiv. black acrylic painted.
Elastomer: Neoprene

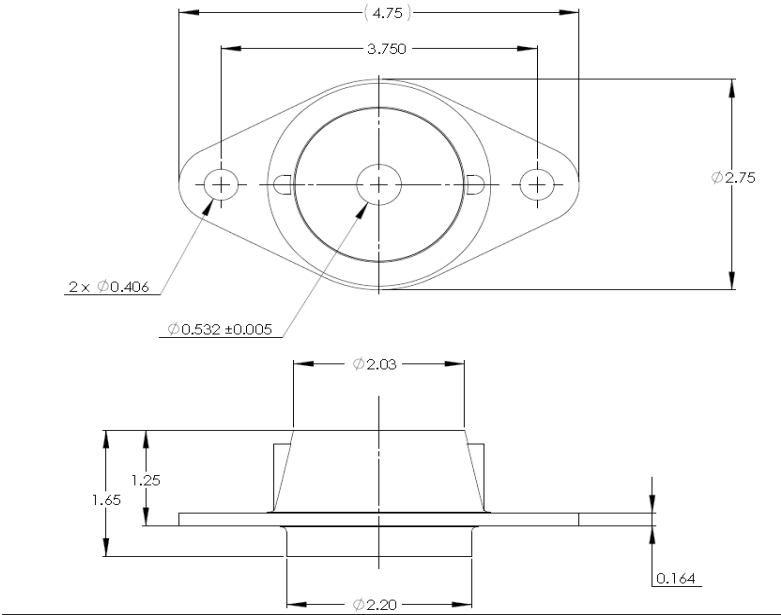


Recommended installation:
Maximum bolt torque: 120 ft-lb (dry) (Grade 8)

Performance Characteristics

Part No.	Nominal Axial Static Load (lbs)	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate		Color Code
		Hz	lb/in	N/mm	lb/in	N/mm	
VIB2119-2	120	10	1220	210	305	54	Red
VIB2119-1	180		1840	320	460	80	White
VIB2119-5	280		2860	500	715	125	Blue
VIB2119-7	380		3880	680	970	170	Purple
VIB2119-9	540		5510	964	1380	240	Grey

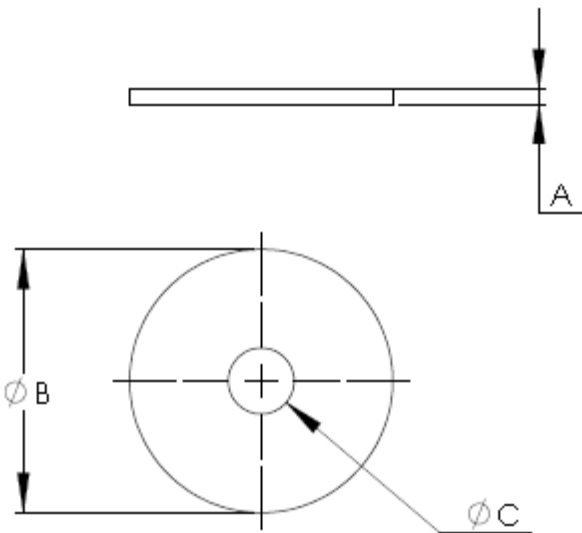
*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



SNUBBING WASHERS

PRODUCT SPECIFICATIONS

Material: Steel per ASTM A1008/A1011
Finish: Zinc plated per ASTM B633, Type II, Class FE/ZN 12



Size	A (Thickness)	B (OD)	C (ID)	PART NO.
VIB2109	.125	2.00	.450	W10046-3
VIB2111	.125	2.13	.532	W10044-2
VIB2119	.150	2.25	.532	W10046-8

VOIDED RING & BUSHING MOUNTS

Voided ring and bushing isolators are versatile, low cost mounts that can satisfy many vibration control problems. They are rugged, low-cost isolators easily installed that provide superior vibration isolation over standard ring and bushing isolators. Voided ring and bushing mounts are ideal for mounting engines, generators, pumps or other rotating equipment in harsh off-road or industrial applications. They are offered standard in neoprene rubber, other materials are available upon request.

Features:

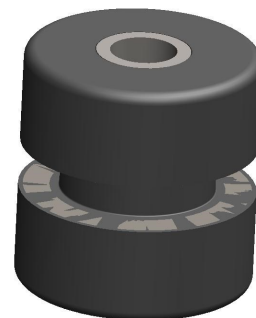
- Compact, lightweight design
- Fail-safe design when used with snubbing washers
- Efficiently isolates vibration in all directions

Voided ring and bushing mounts are available in four sizes with load ratings from 40 to 2,100 lbs.

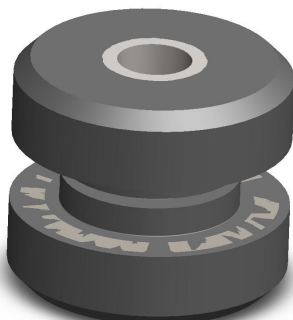
- 2421 Size: Load ratings from 40 to 300 lb
- 2419 Size: Load ratings from 130 to 630 lb
- 2417 Size: Load ratings from 210 to 1330 lb
- 2420 Size: Load ratings from 270 to 2100 lb



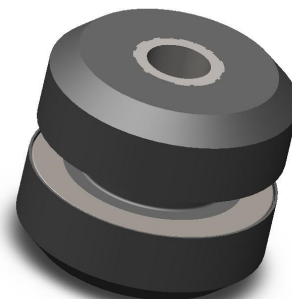
VIB2421



VIB2419



VIB2420



VIB2417

VOIDED RING & BUSHING MOUNTS VIB2421 SERIES

PRODUCT SPECIFICATIONS

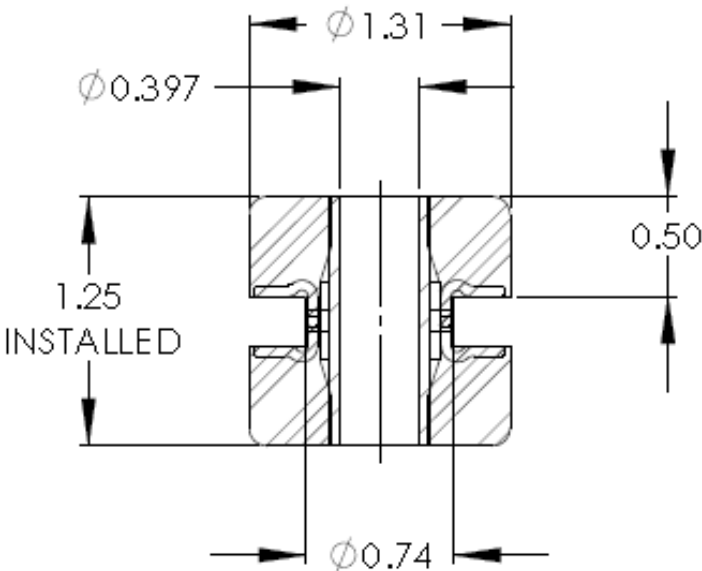
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 40 – 300 lb
Axial-Radial Stiffness Ratio: 1:1.5
Part Weight:
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



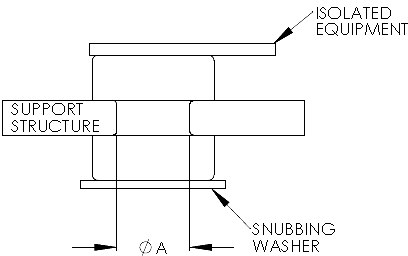
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lb/in	N/mm
VIB2421-11	40	15	1000	175	500	88
VIB2421-12	90		2000	350	1000	175
VIB2421-13	140		3000	525	1500	263
VIB2421-14	250		5000	877	2500	439
VIB2421-15	300		7500	1316	3750	658

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION

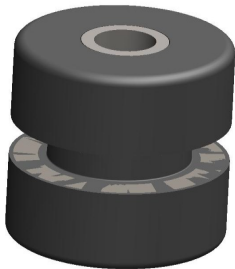


Ø A = 0.75
T = 0.375 (Support Structure Thickness)

VOIDED RING & BUSHING MOUNTS VIB2419 SERIES

PRODUCT SPECIFICATIONS

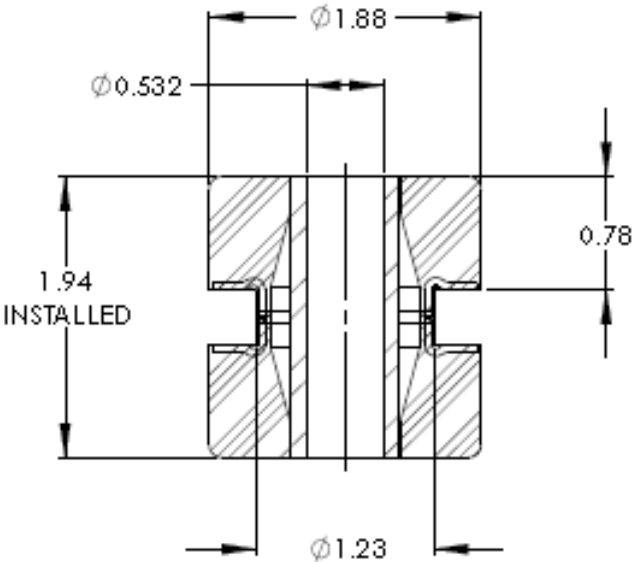
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 130 – 630 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight:
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



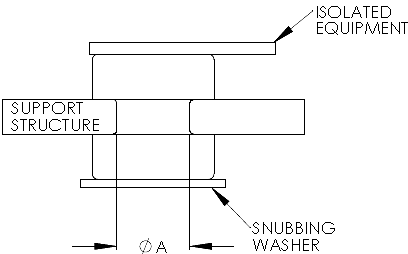
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lb/in	N/mm
VIB2419-11	130	12	1860	326	744	130
VIB2419-12	175		2500	438	1000	146
VIB2419-13	240		3400	596	1360	175
VIB2419-14	380		5400	947	2160	379
VIB2419-15	630		9000	1579	3600	632

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION

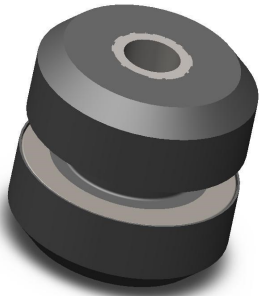


$\varnothing A = 1.25$
 $T = 0.563$ (Support Structure Thickness)

VOIDED RING & BUSHING MOUNTS VIB2417 SERIES

PRODUCT SPECIFICATIONS

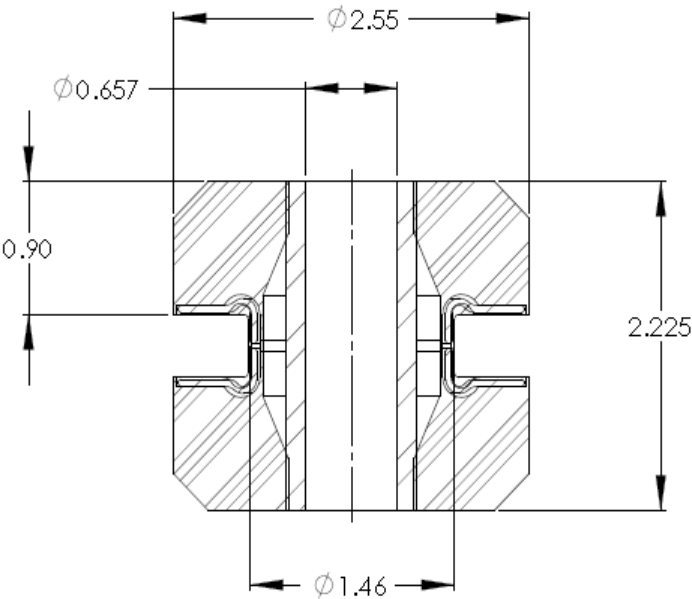
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 210 – 1330 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight:
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



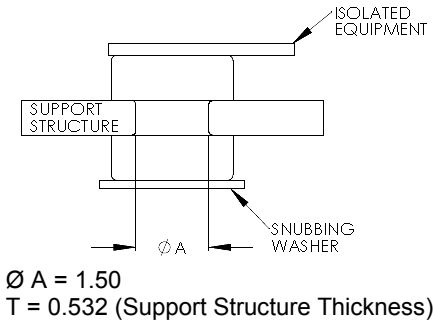
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs	Hz	lb/in	N/mm	lb/in	N/mm
VIB2417-11	210	11	2500	439	720	125
VIB2417-12	350		4100	720	1200	206
VIB2417-13	490		5800	1018	1660	290
VIB2417-14	860		10100	1772	2886	506
VIB2417-15	1330		15600	2737	4460	782

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



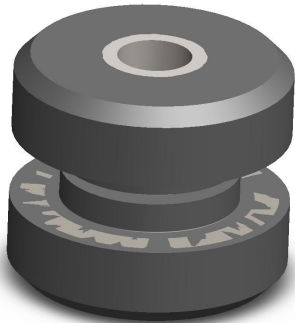
TYPICAL INSTALLATION



VOIDED RING & BUSHING MOUNTS VIB2420 SERIES

PRODUCT SPECIFICATIONS

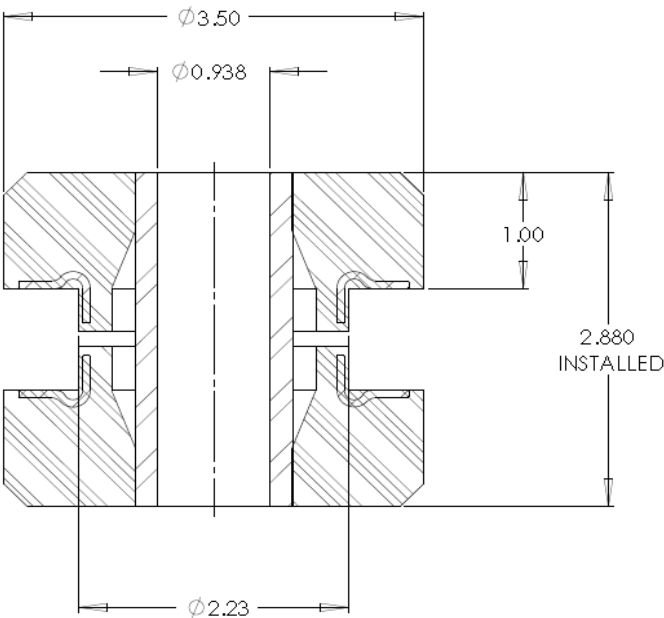
Operating Temperature: -20 to +220 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 270 – 2100 lb
Axial-Radial Stiffness Ratio: 1:1
Part Weight:
Materials: Elastomer: Neoprene
Tube: DOM Tubing, ASTM A513, type V, class 1026 or equivalent



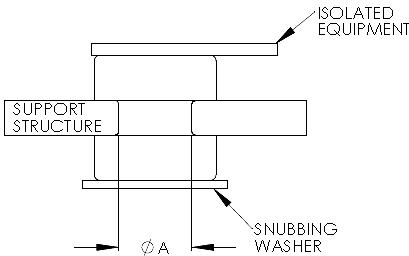
Performance Characteristics

Assembly	Max Axial Load	Axial Natural Frequency	Dynamic Axial Spring Rate		Dynamic Radial Spring Rate	
	lbs		lb/in	N/mm	lb/in	N/mm
VIB2420-11	270	10	3000	526	750	132
VIB2420-12	510		5700	1000	1425	250
VIB2420-13	770		8500	1490	2125	373
VIB2420-14	1170		13000	2280	3250	570
VIB2420-15	2100		23300	4090	5825	1023

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:
 $F_n = F_{nn} \cdot \sqrt{P_r / P_a}$
Where:
Fn: Natural Frequency at actual load (Hz)
Fnn: Nominal Natural Frequency (Hz)
Pr: Rated load
Pa: Actual load



TYPICAL INSTALLATION

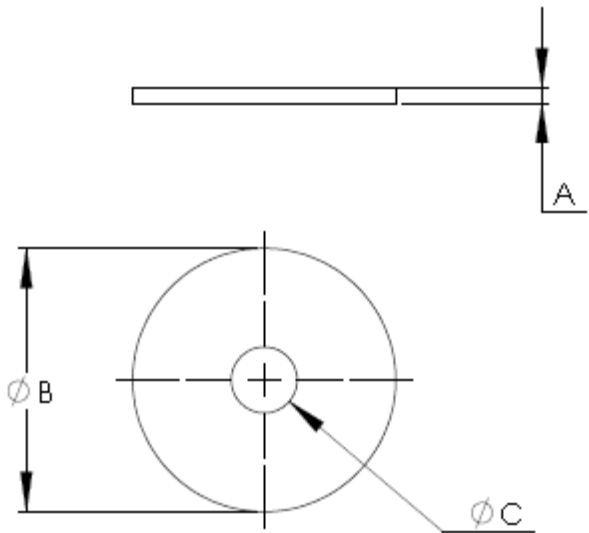


$\varnothing A = 2.25$
 $T = 1.125$ (Support Structure Thickness)

SNUBBING WASHERS

PRODUCT SPECIFICATIONS

Material: Steel per ASTM A1008/A1011
Finish: Zinc plated per ASTM B633, Type II, Class FE/ZN 12



Size	A	B DIA	C DIA	PART NO.
VIB2421	.090	1.56	.391	W10044-1
VIB2419	.134	2.13	.532	W10044-2
VIB2417	.188	2.81	.657	W10044-3
VIB2420	.250	3.88	.938	W10044-4

EES SERIES MACHINERY MOUNTS

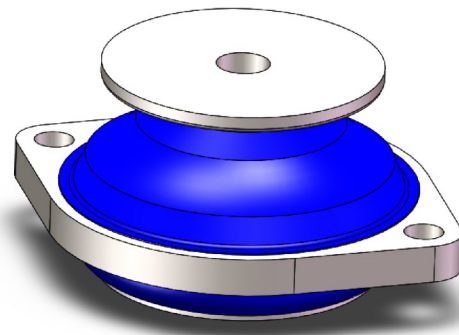
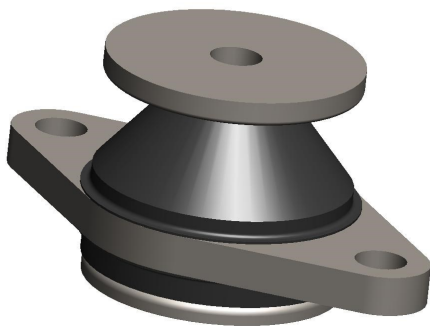
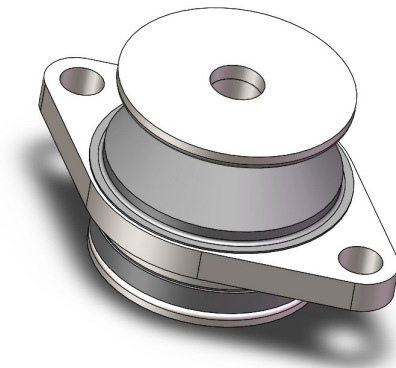
EES machinery mounts are U.S. Navy standard resilient mounts meeting the requirements of MIL-M_17508 for the control of vibration and structure borne noise. They are rugged, all-attitude, low frequency vibration mounts designed for extended use in harsh marine environments.

Features:

- 1:1 Axial to Radial spring rate
- Fail-safe design
- Efficiently isolates vibration in all directions
- Survives MIL-S-901D shock

Applicable Military Specifications:

- MIL-M-17508
- MIL-STD-167
- MIL-S-901



6E100 EES MACHINERY MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +180 F

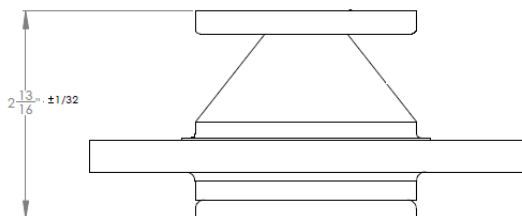
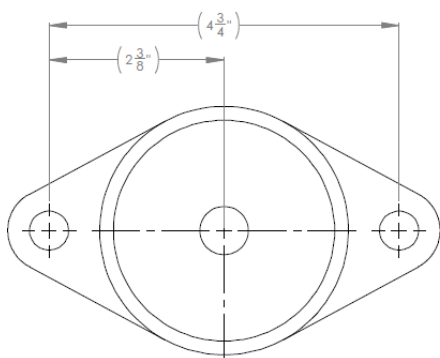
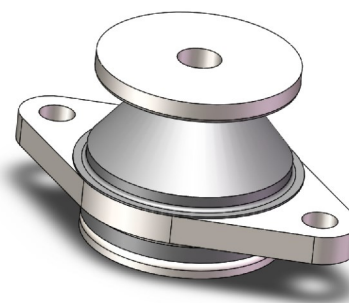
Maximum Transmissibility at Resonance: 10.0

Load Capacity: 50 – 100 lb

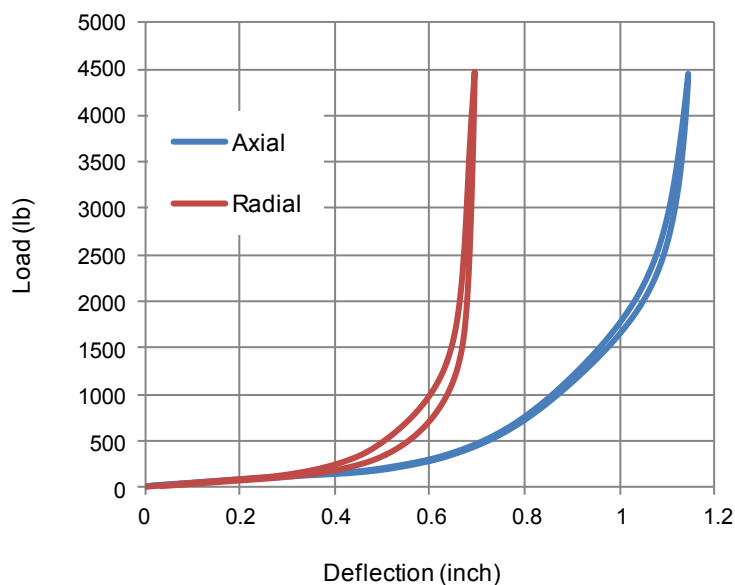
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 2.9 lb

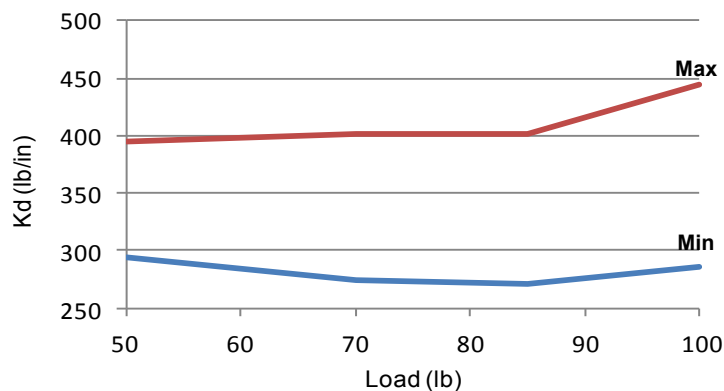
Materials: Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-23256, Type I
Elastomer: Natural Rubber, coated with oil/ozone
resistant coating



Typical Load-Deflection



Natural Frequency vs. Load



6E150 EES MACHINERY MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +180 F

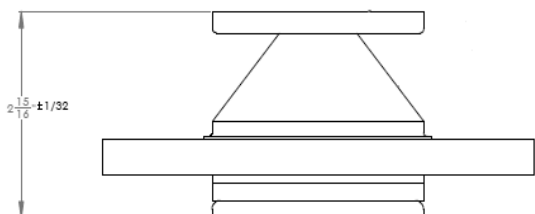
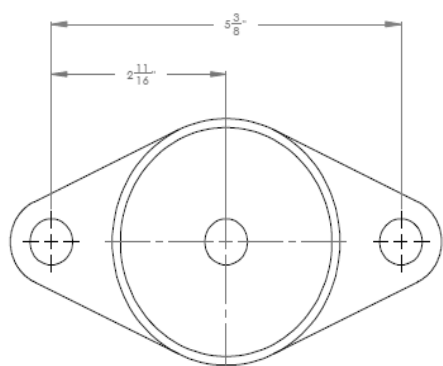
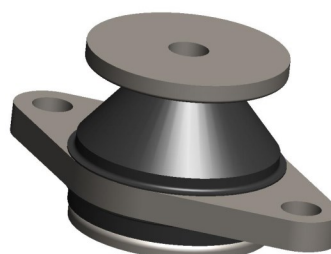
Maximum Transmissibility at Resonance: 10.0

Load Capacity: 100 – 150 lb

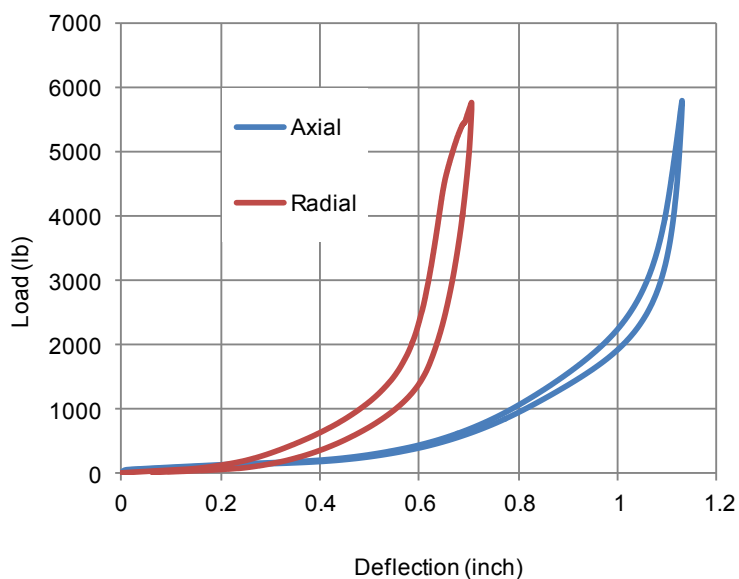
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 3.5 lb

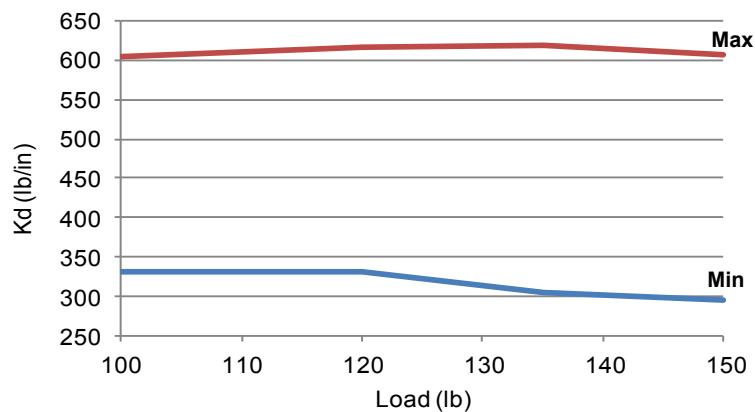
Materials: Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-23256, Type I
Elastomer: Natural rubber coated with oil/ozone
resistant coating



Typical Load-Deflection



Dynamic Stiffness vs. Load



7E450 EES MACHINERY MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

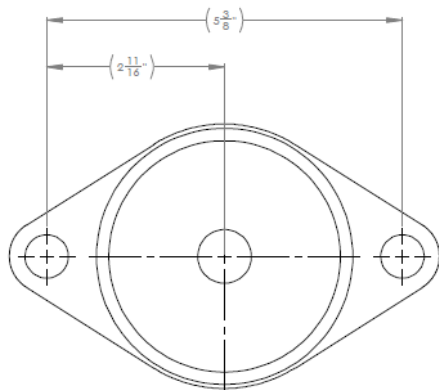
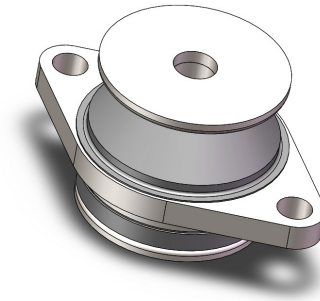
Maximum Transmissibility at Resonance: 10.0

Load Capacity: 150 – 450 lb

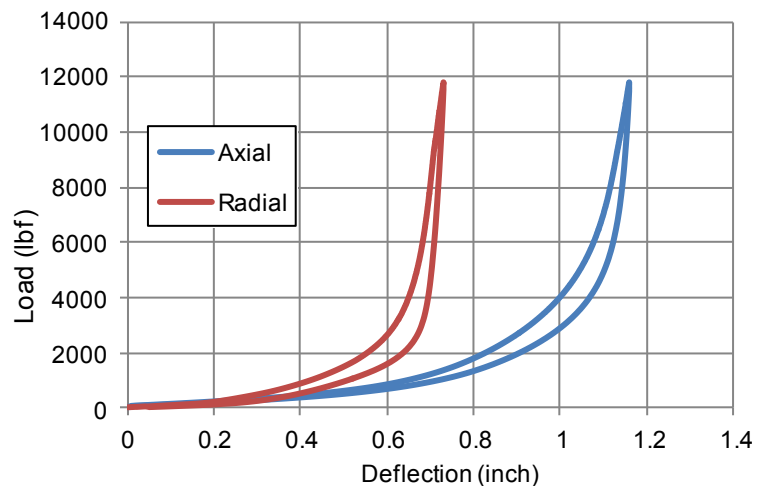
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 4.5 lb

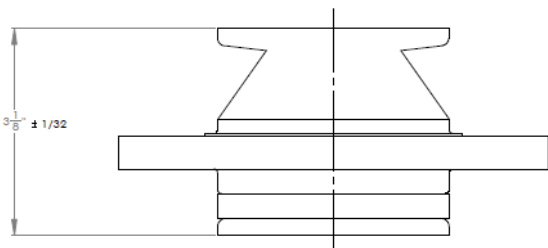
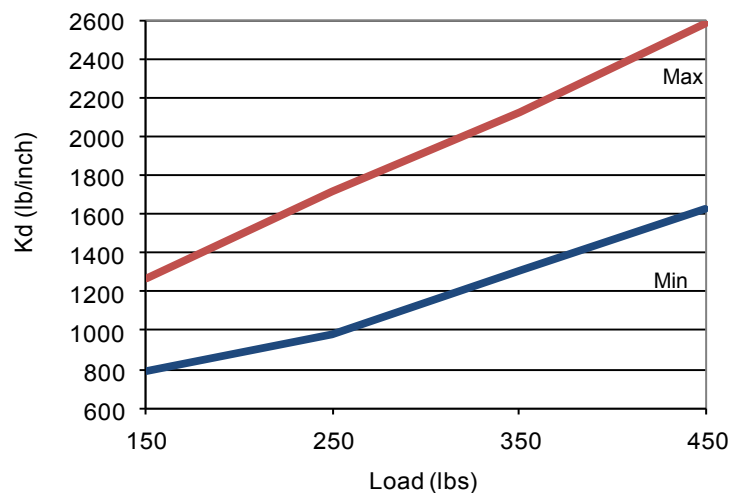
Materials: Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-23256, Type I
Elastomer: Neoprene



Typical Load-Deflection



Dynamic Stiffness vs. Load



6E900 EES MACHINERY MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

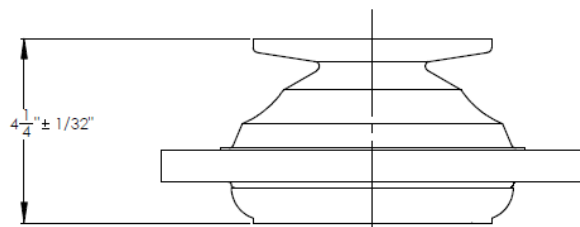
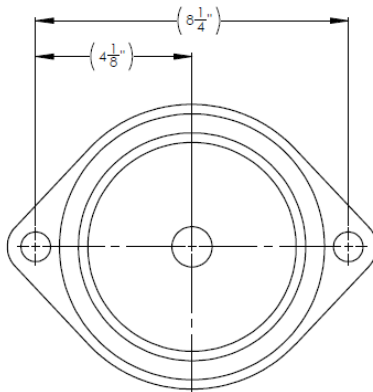
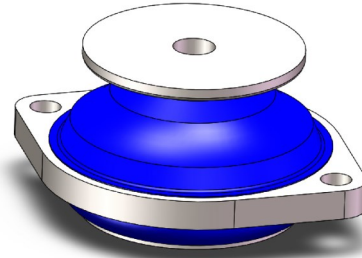
Maximum Transmissibility at Resonance: 10.0

Load Capacity: 450 – 900 lb

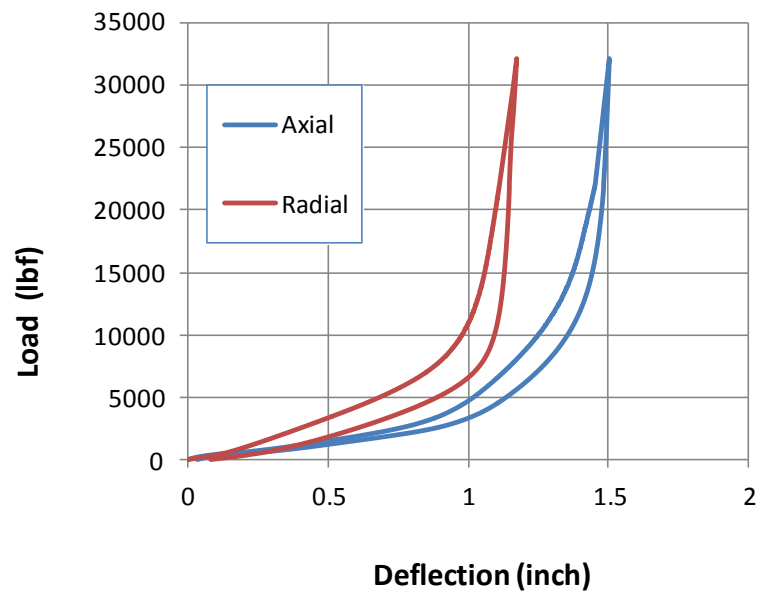
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 17 lb

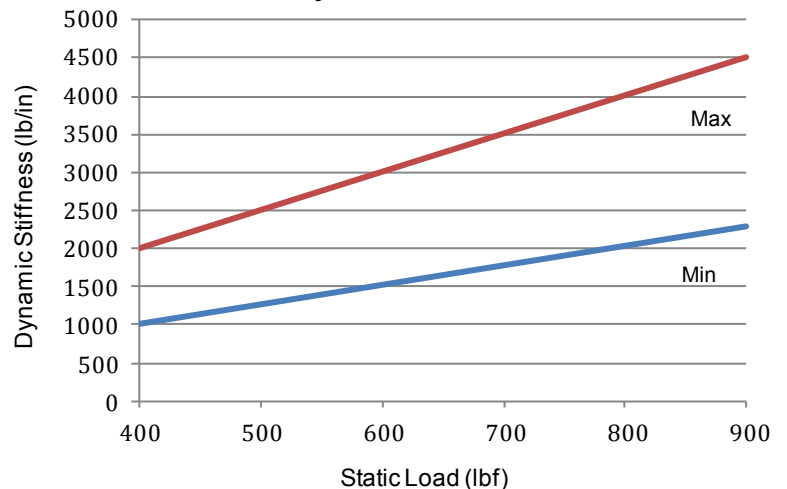
Materials: Metal Components: ASTM A36 or MIL-S-22698, painted
per MIL-P-23256, Type I
Elastomer: Neoprene



Typical Load-Deflection



Dynamic Stiffness vs. Load



79

G SERIES PIPE HANGER MOUNTS

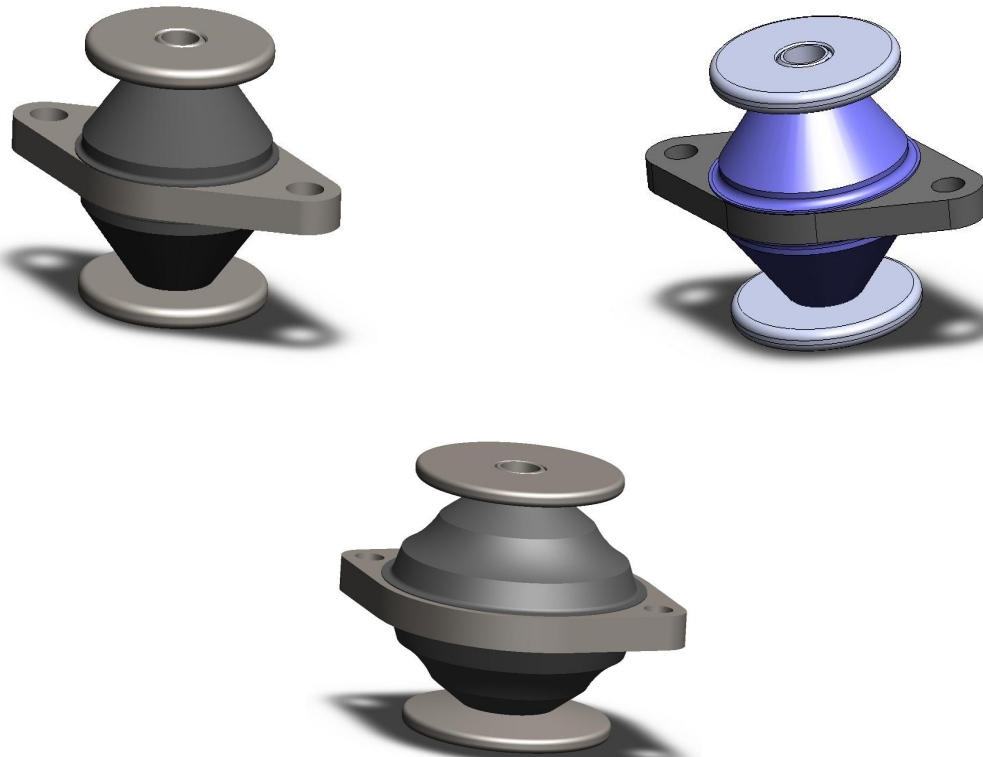
G series pipe hanger mounts are U.S. Navy approved resilient mounts for the control of vibration and structure borne noise. They are rugged, all-attitude, low frequency vibration mounts designed for extended use in harsh marine environments.

Features:

- 1:1 Axial to Radial spring rate
- All attitude design
- Fail-safe design
- Efficiently isolates vibration in all directions
- Survives MIL-S-901D shock

Applicable Military Specifications:

- MIL-S-901
- MIL-STD-167
- MIL-M-17185



8G100 PIPE HANGER MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

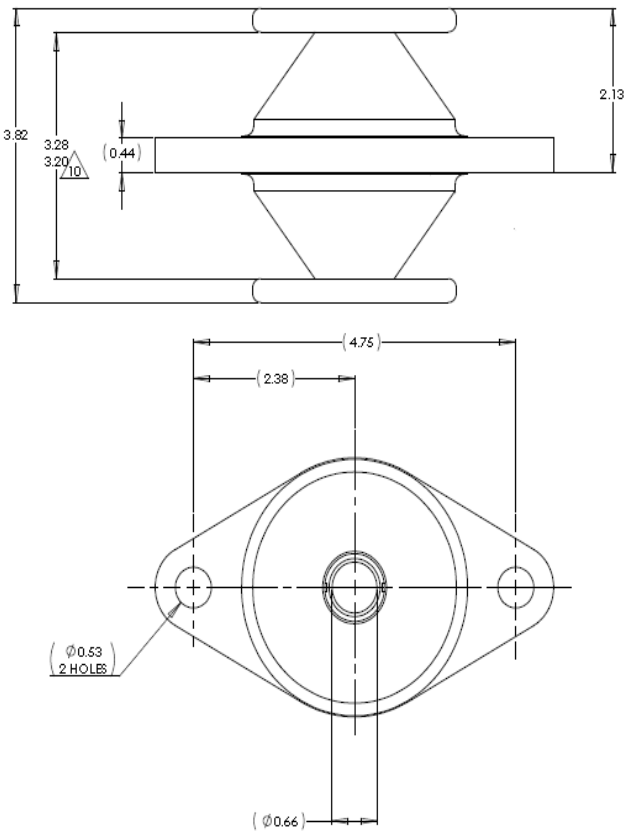
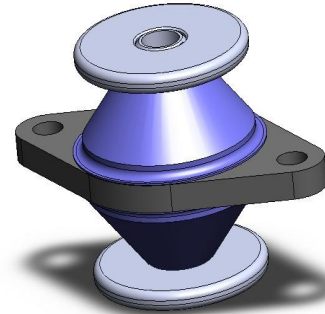
Load Capacity: 50 – 100 lb

Axial-Radial Stiffness Ratio: 1:1

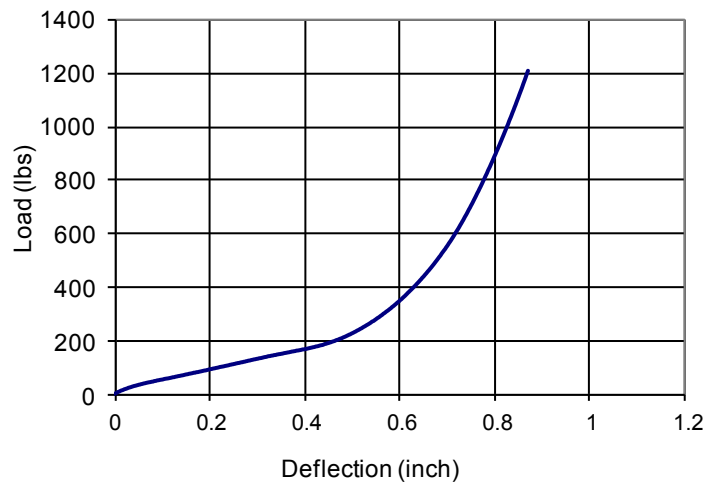
Part Weight: 2.8 lb

Materials: Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

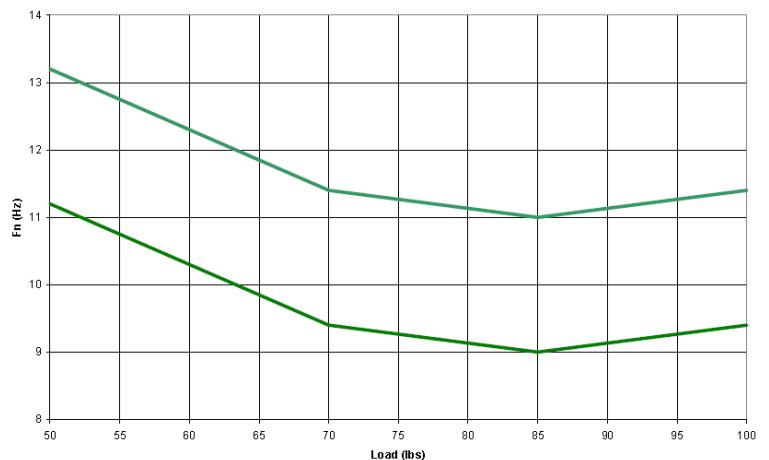
Elastomer: Neoprene



Typical Load-Deflection



Natural Frequency vs. Load



8G150 PIPE HANGER MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

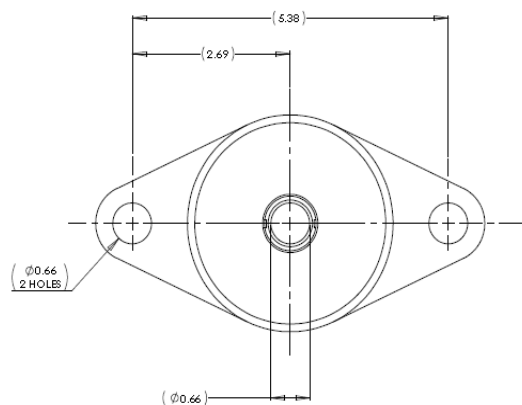
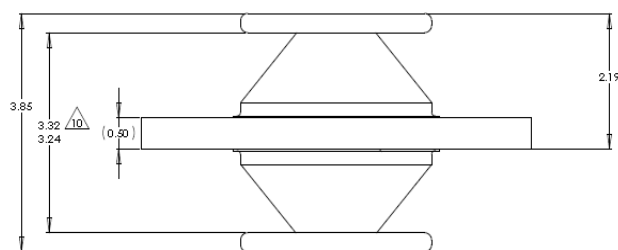
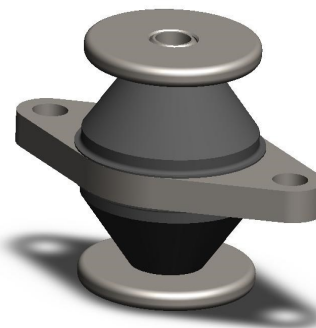
Load Capacity: 100 – 150 lb

Axial-Radial Stiffness Ratio: 1:1

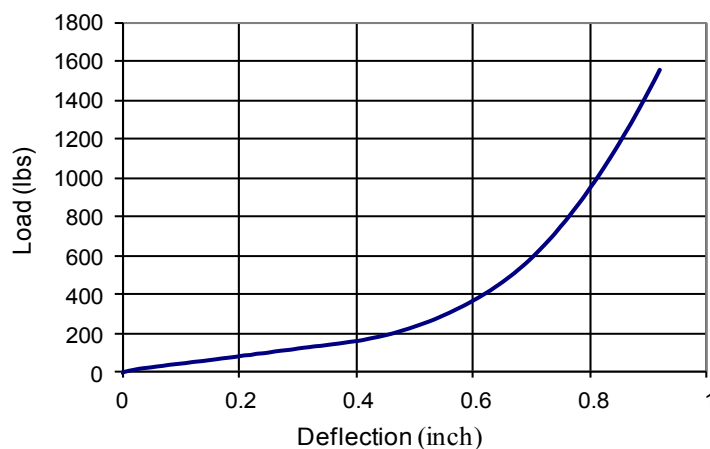
Part Weight: 3.3 lb

Materials: Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

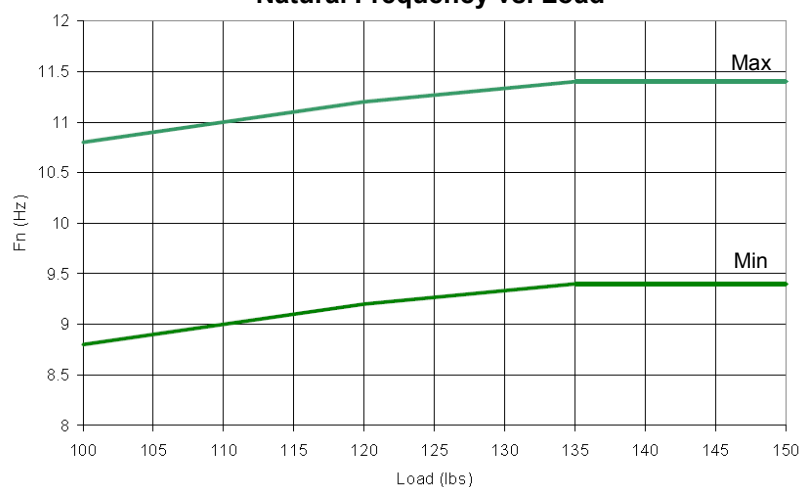
Elastomer: Neoprene



Typical Load-Deflection



Natural Frequency vs. Load



7G450 PIPE HANGER MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

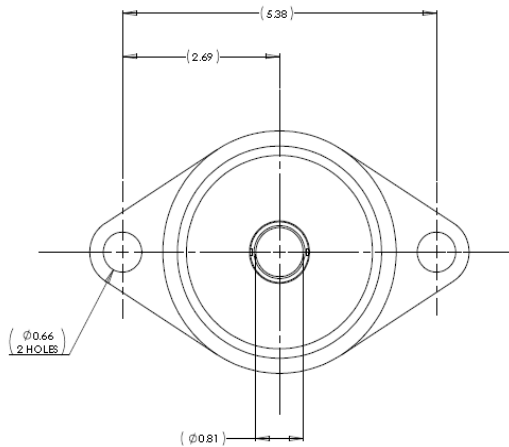
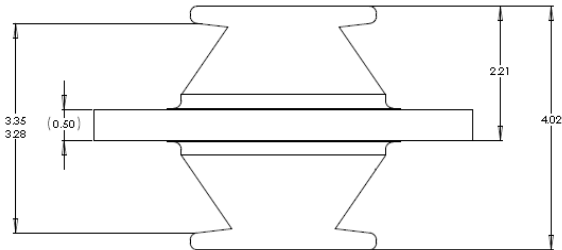
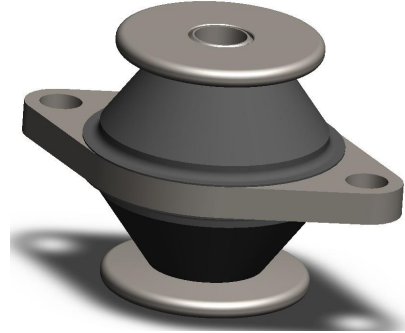
Load Capacity: 150 – 450 lb

Axial-Radial Stiffness Ratio: 1:1

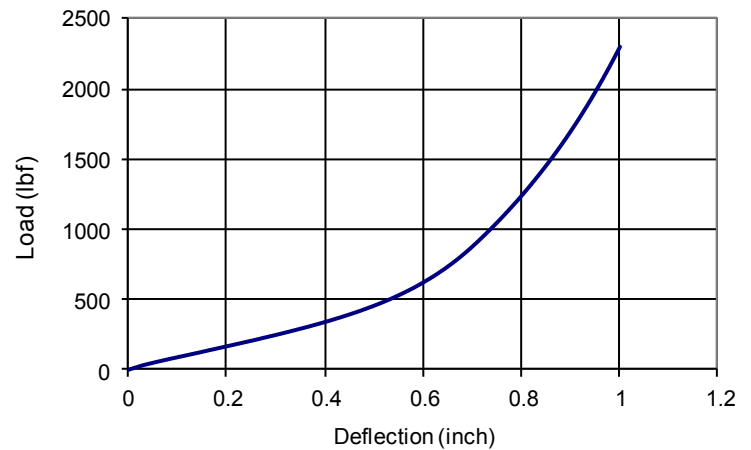
Part Weight: 3.8 lb

Materials: Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

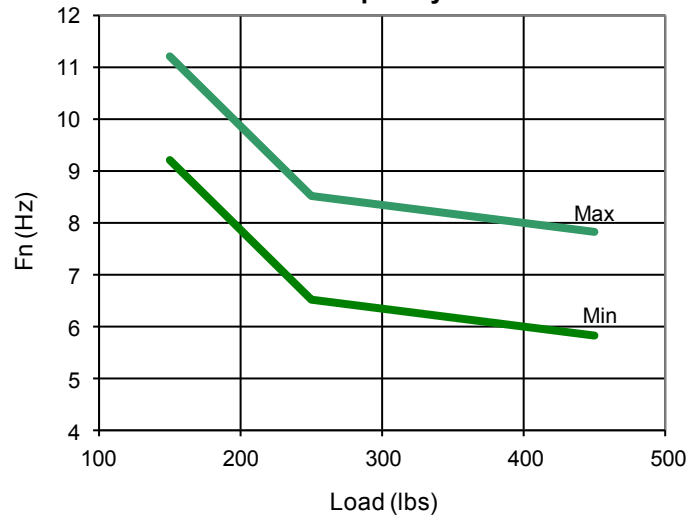
Elastomer: Neoprene



Typical Load Deflection



Natural Frequency vs. Load



6G900 PIPE HANGER MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 450 – 900 lb

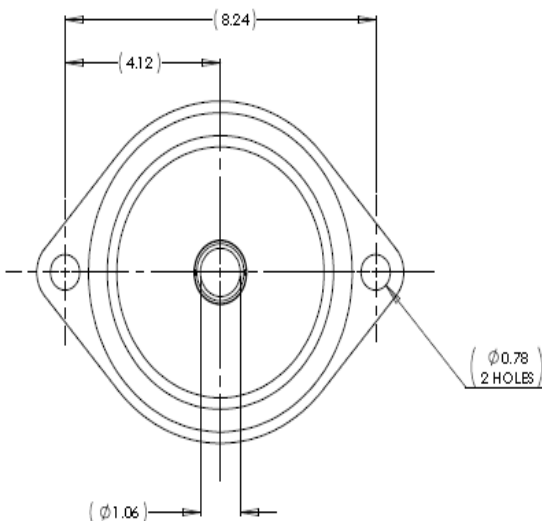
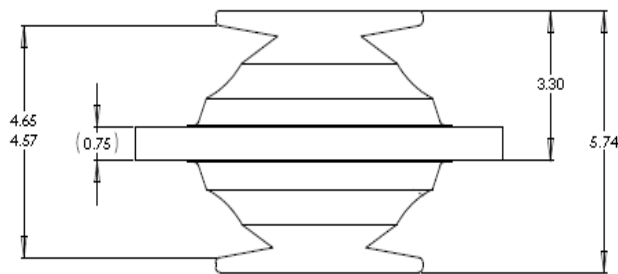
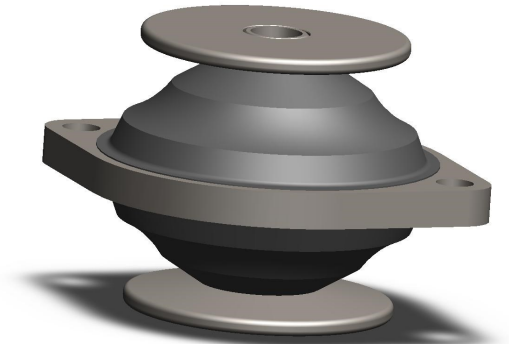
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 17 lb

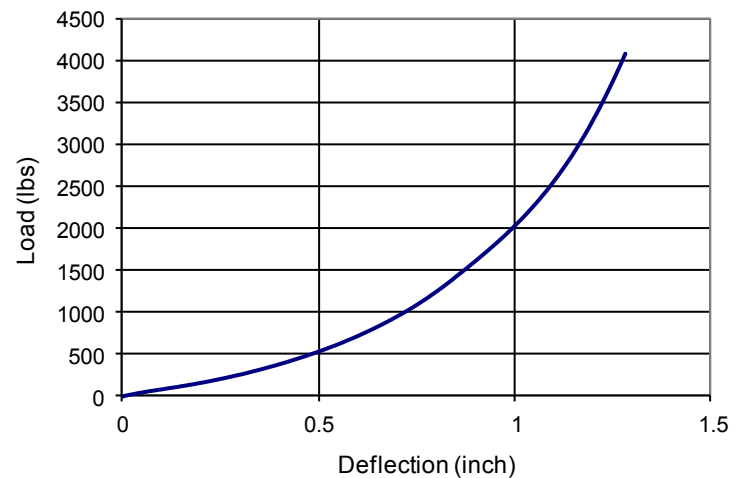
Materials:

Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

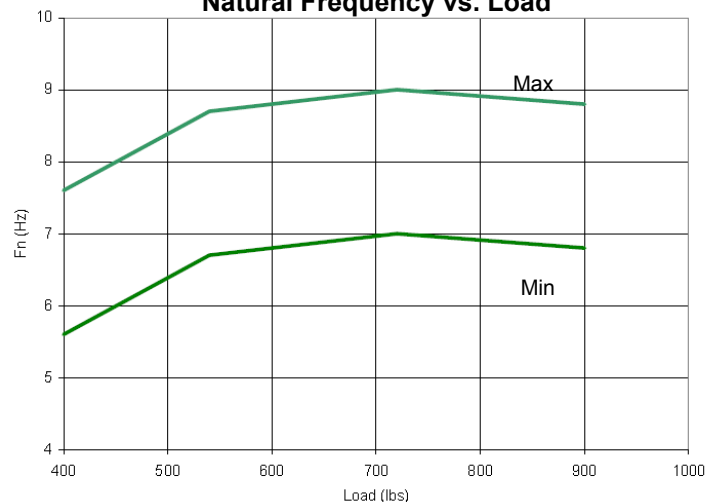
Elastomer: Neoprene



Typical Load Deflection



Natural Frequency vs. Load



6G2000 PIPE HANGER MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 900 – 2000 lb

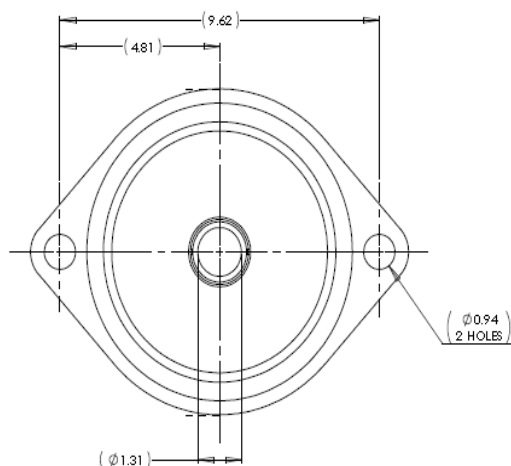
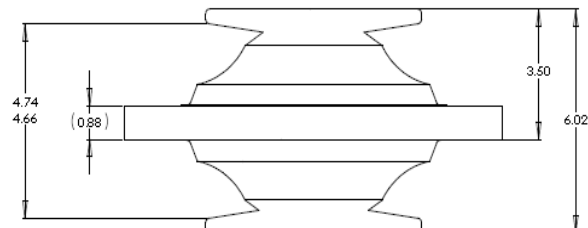
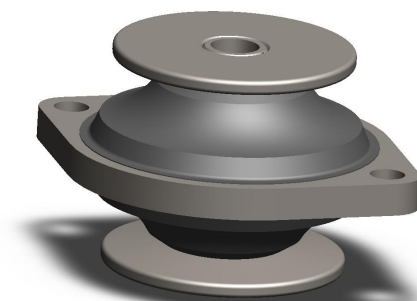
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 26.5 lb

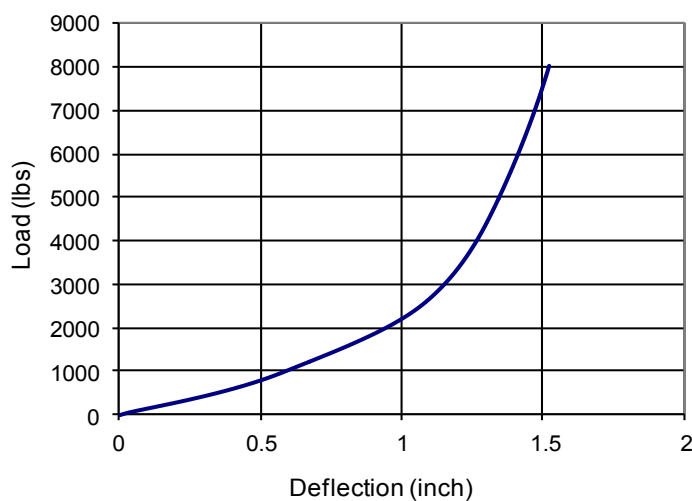
Materials:

Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

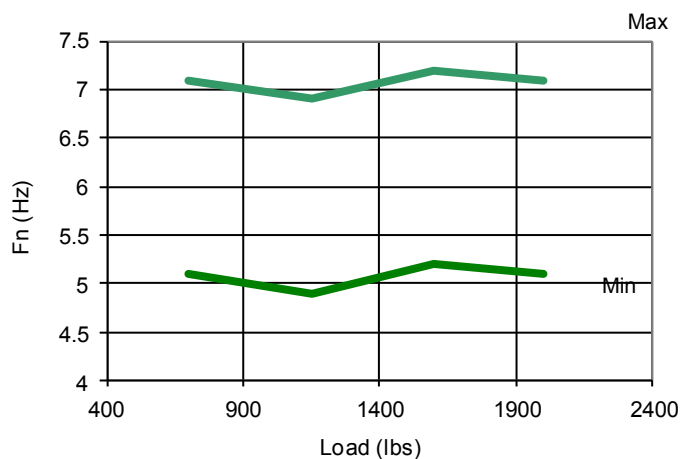
Elastomer: Neoprene



Typical Load-Deflection



Natural Frequency vs. Load



MARE ISLAND MOUNTS

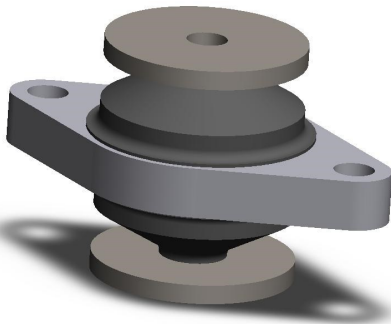
Mare Island mounts are U.S. Navy approved resilient mounts for the control of vibration and structure borne noise. They are rugged, all-attitude, low frequency vibration mounts designed for extended use in harsh marine environments.

Features:

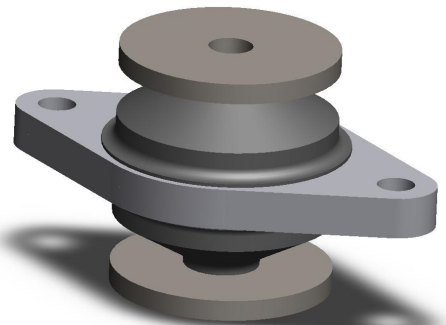
- 1:1 Axial to Radial spring rate
- Fail-safe design
- Efficiently isolates vibration in all directions
- Survives MIL-S-901D shock

Applicable Military Specifications:

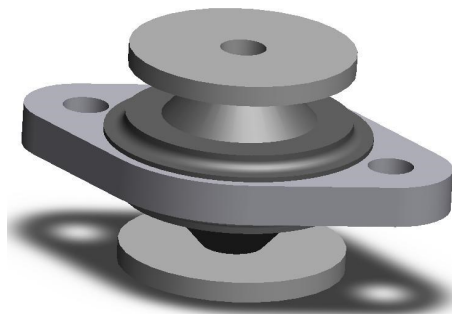
- MIL-S-901
- MIL-STD-167
- MIL-M-17185
- MIL-M-19379



10M50



11M25



11M15

10M50 MARE ISLAND MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 25 – 50 lb

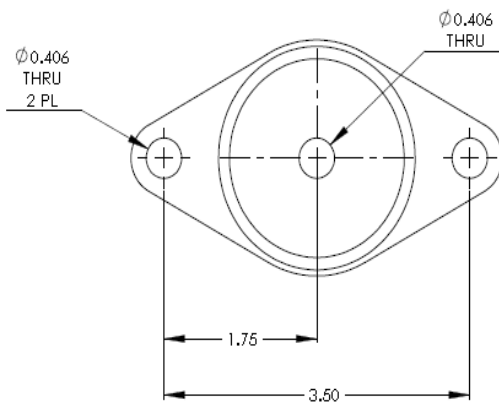
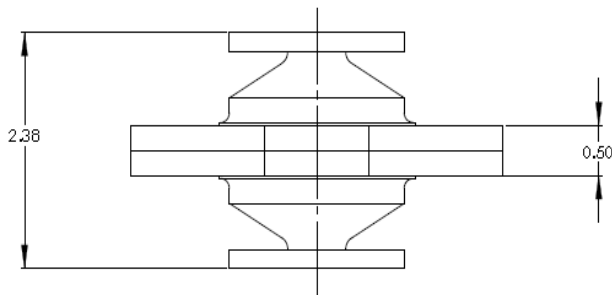
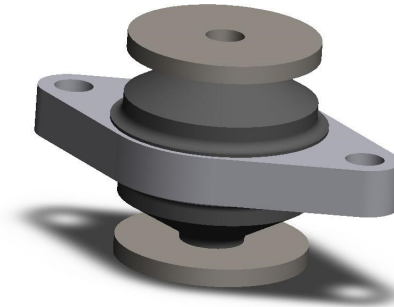
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 1.1 lb

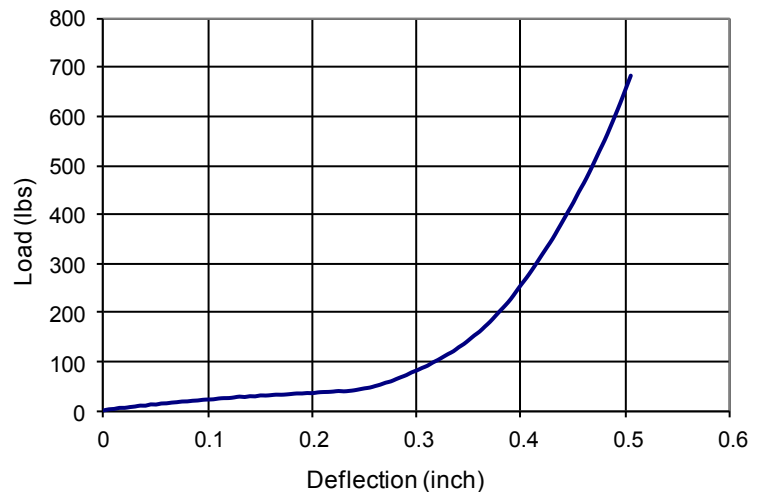
Materials:

Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

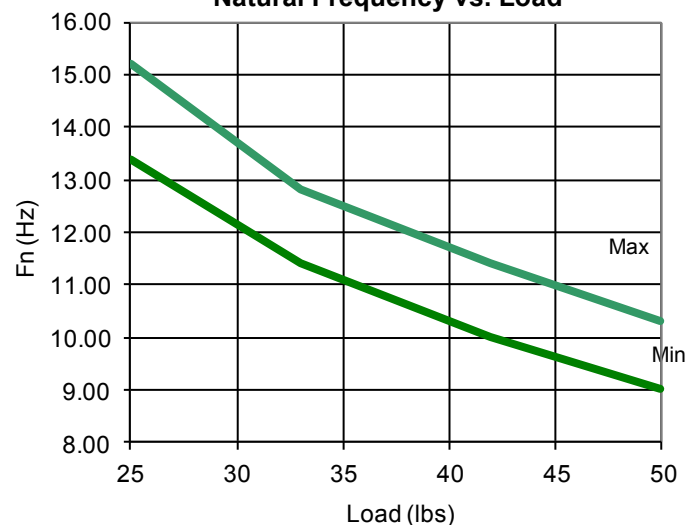
Elastomer: Neoprene



Typical Load-Deflection



Natural Frequency vs. Load



11M25 MARE ISLAND MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 15 – 25 lb

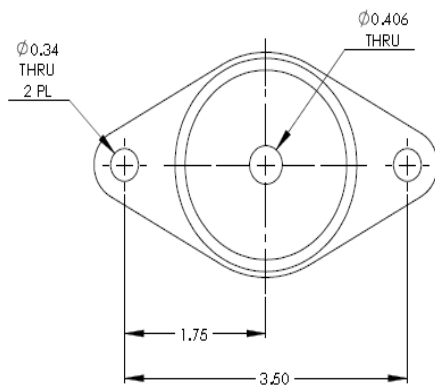
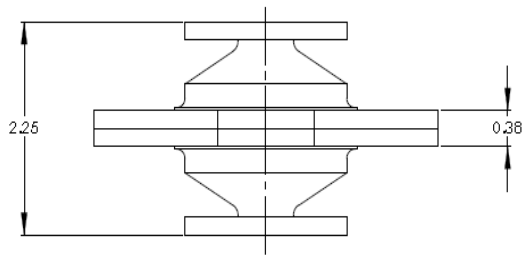
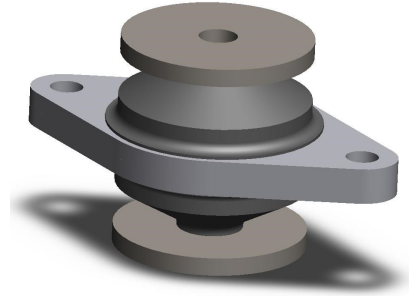
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 1.0 lb

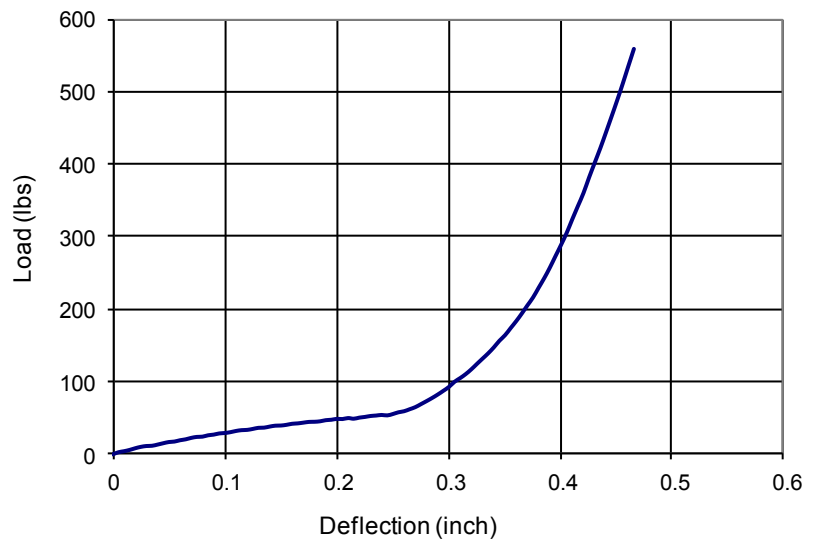
Materials:

Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

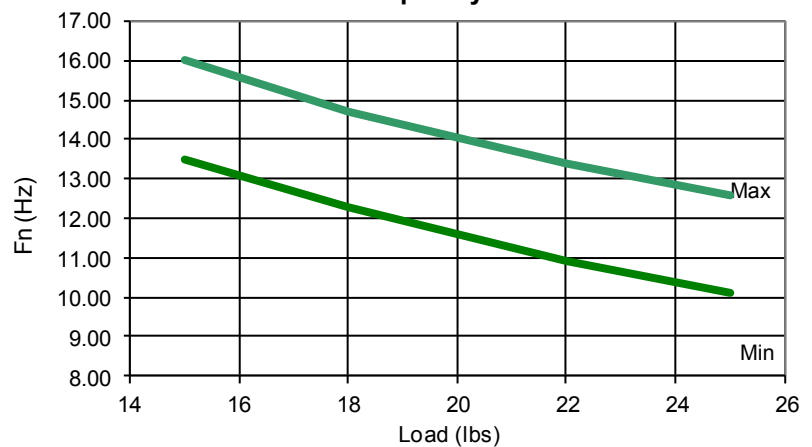
Elastomer: Neoprene



Typical Load-Deflection



Natural Frequency vs. Load



11M15 MARE ISLAND MOUNT

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 10.0

Load Capacity: 9 – 15 lb

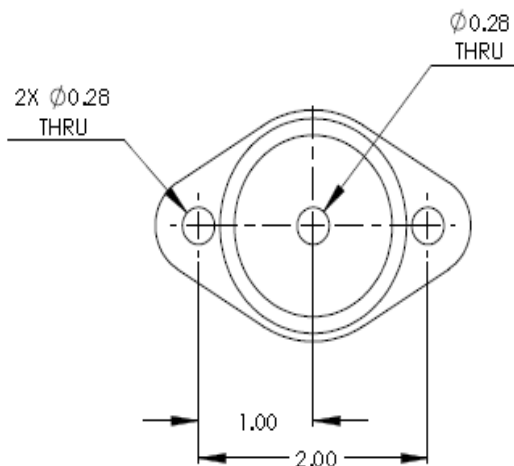
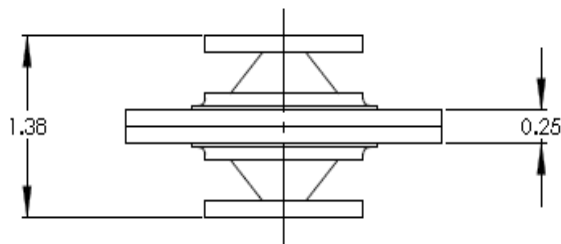
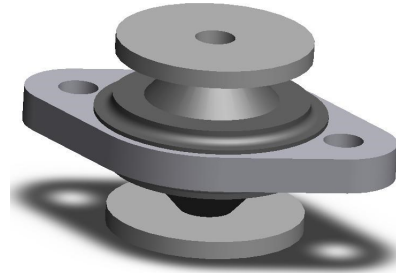
Axial-Radial Stiffness Ratio: 1:1

Part Weight: 0.3 lb

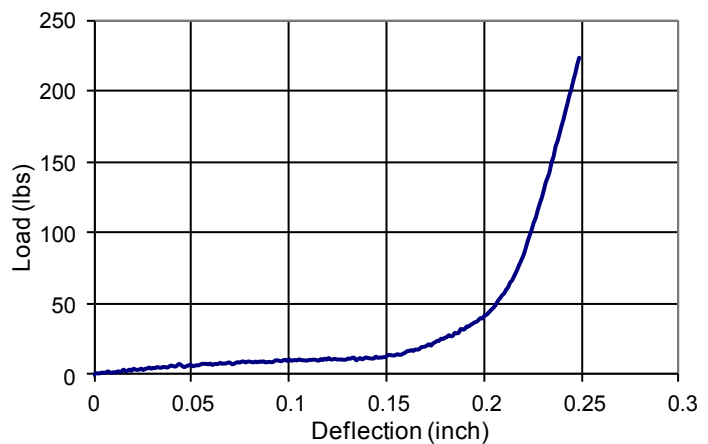
Materials:

Metal Components: ASTM A36 or MIL-S-22698,
painted per MIL-P-24441, Type IV

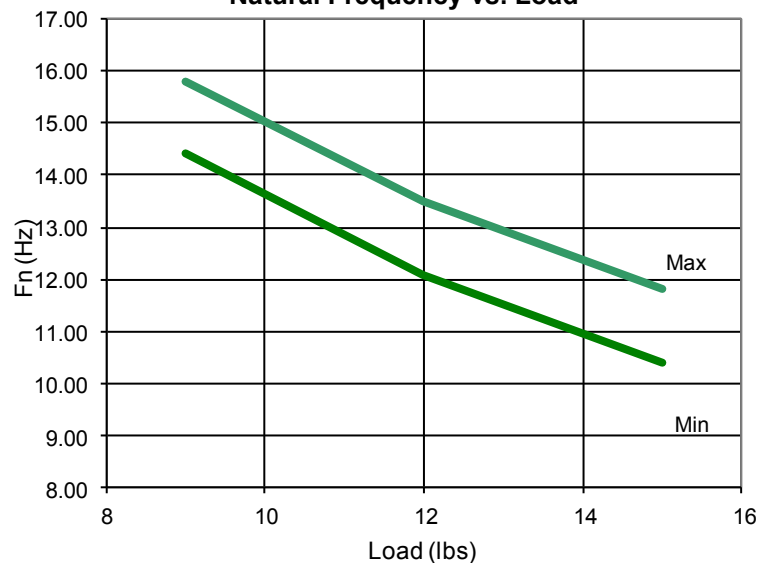
Elastomer: Neoprene



Typical Load-Deflection



Natural Frequency vs. Load



DISTRIBUTED ISOLATION MATERIAL (DIM)

PRODUCT SPECIFICATIONS

Part Number: P20001

Operating Temperature: -20 to +200 F

Maximum Transmissibility at Resonance: 8.0

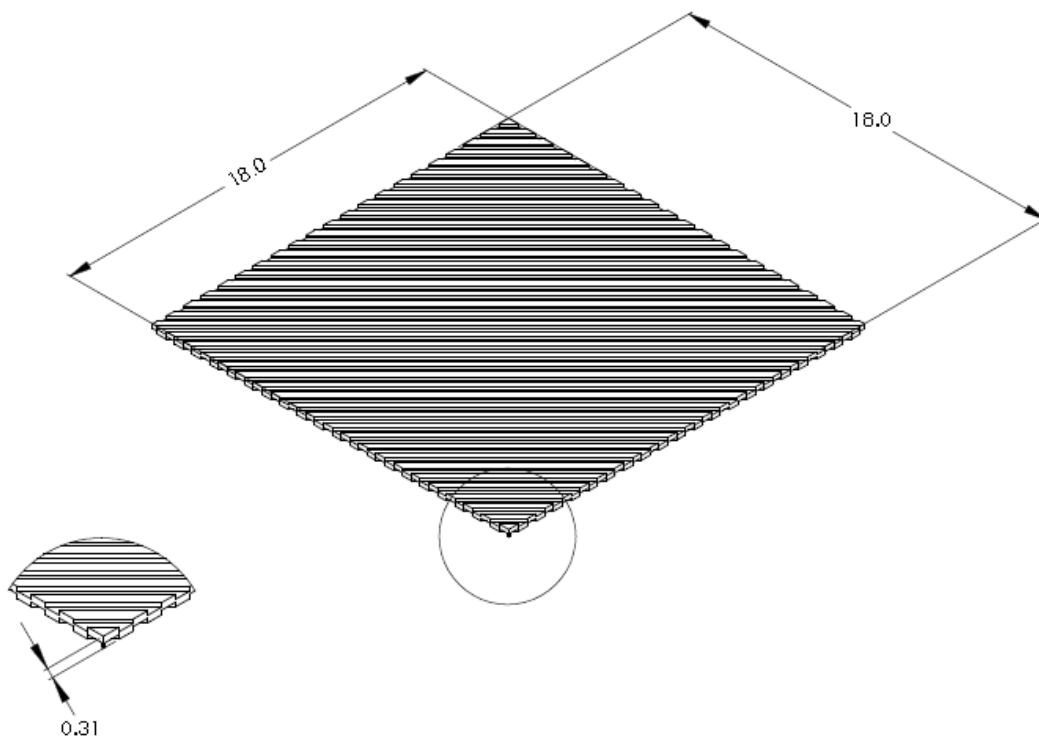
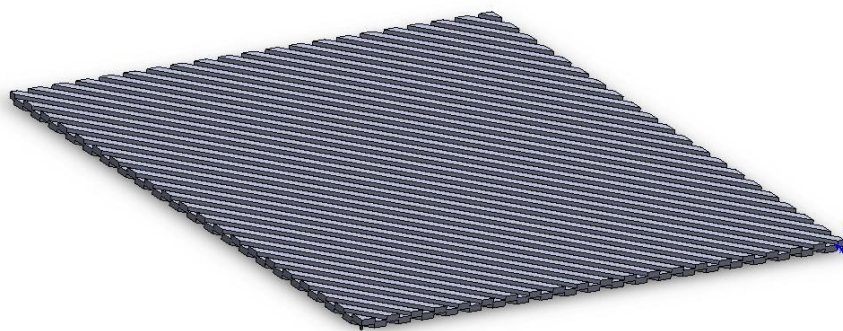
Typical Natural Frequency: 20 — 35 Hz

Load Capacity: 50 psi

Part Weight: 2.6 lb per sheet

Materials: MIL-R-6855 CL2, GR 45

CUSTOM CUT SHEET SIZES AVAILABLE ON REQUEST



GENERAL APPLICATIONS WORKSHEET

Contact Information

Name _____
 Title _____
 Company _____
 Address _____
 City _____ State _____
 Zip Code _____
 Phone: _____ Fax: _____
 Email: _____

System Information

Weight: _____ Number of Mounts _____
 Moments of Inertia: _____ Center of Gravity _____
 X _____ X _____
 Y _____ Y _____
 Z _____ Z _____
 Fragility Level: _____
 Available Sway Space (X,Y,Z): _____
 Frequencies Requiring Isolation (Hz): _____

Vibration Input Information

Internally Generated ☐
 Externally Generated ☐

Internal Vibration

Vibration Frequency (Hz) _____
 Direction of disturbance _____
 Vibration Source: _____

External Vibration

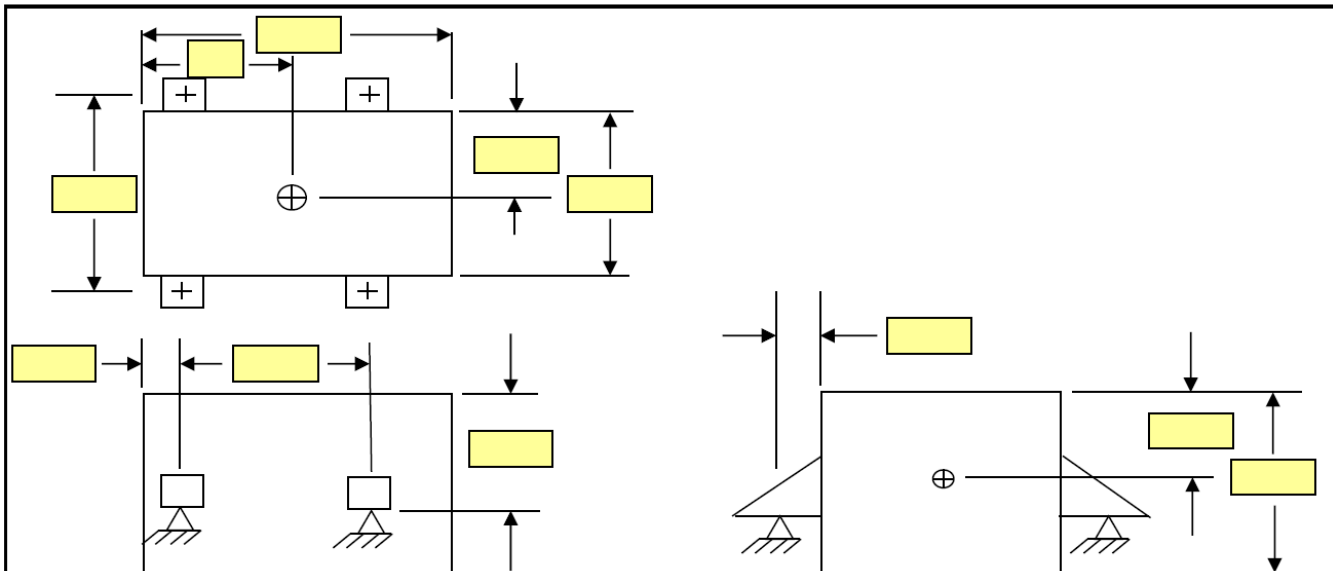
Sinusoidal ☐ Direction(s) _____
 Random ☐
 Frequencies (or) Input Spectrum (or) MIL Spec. _____

Shock Input Information

Amplitude (G) _____ Duration (ms) _____ Pulse Shape _____
 Drop Height _____
 Specification Input (SRS, ballistic, 901, etc) _____

Environmental Information

Max Temperature _____ Min Temperature _____
 Chemical Compounds: _____
 Other Requirements or Specifications: _____



**Alternatively, a dimensioned drawing or sketch of the Application can be attached

ENGINE MOUNT APPLICATIONS WORKSHEET

English ☐

Metric ☐

Application Description

Engine

Make & Model

Number of Cylinders & Arrangement

Firing Order

2 Stroke or 4 stroke

Weight (lbs / Kgs)

Horsepower

Maximum Torque

RPM (Idle, Operating)

Moments of Inertia (lbs-in-sec² / Kg-m-sec²)

Ixx

Iyy

Izz

Or

Block Dimensions (inches / millimeters)

Length

Width

Height

Transmission:

Weight

Moments of Inertia (lbs-in-sec² / Kg-m-sec²)

Ixx

Iyy

Izz

Or

Block Dimensions (inches / millimeters)

Length

Width

Height

Mount Dimensions (inches / millimeters)

Max Length

Max Width

Max Height

Allowable Deflection (inches / millimeters)

Fore-Aft

Lateral

Vertical

Dimensions (Refer to the figure below) in inches / millimeters

Engine CG to Crank Centerline

A

Front Mount to Engine CG

C

Front Mount to Rear Face of Block

D

Front Mount to Rear Mount

E

Front Mount to Transmission CG

F

Mount to Crank Centerline

Front B

Rear J

Mount Spacing Side-to-Side

Front G

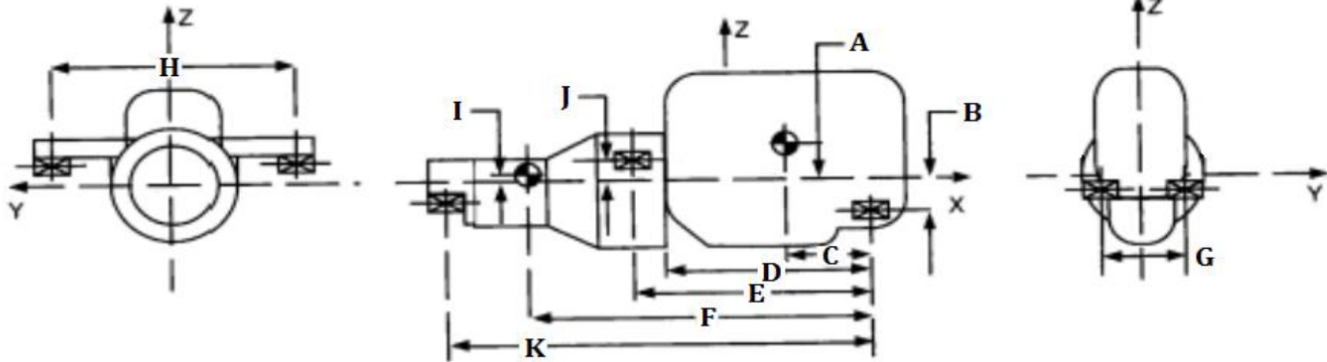
Rear H

Transmission CG to Crank Centerline

I

Front Mount to Tail Mount

K



Notes:

MARINE MOUNT APPLICATIONS WORKSHEET

English ☐

Metric ☐

Application Description

Engine

Make & Model

Number of Cylinders

Firing Order

Weight (lbs / Kgs)

Horsepower

Maximum Torque

RPM (Idle, Operating)

Moments of Inertia (lbs-in-sec² / Kg-m-sec²)

Marine Gear

Make & Model

Gear Ratio

Weight

Moments of Inertia (lbs-in-sec²)

:1

(lbs-in-sec²) (lbs-in²)

Ixx

Iyy

Izz

Kg-CM²

Kg-M²

Or

Block Dimensions (inches / millimeters)

Ixx

Iyy

Izz

Length

Width

Height

Or

Block Dimensions (inches / millimeters)

Length

Width

Height

Stringer Dimensions (inches / millimeters)

Engine Arrangement

(stern drive, V drive, ?)

Maximum Propeller Thrust (lbs / kgs)

Service Type

Width

Install Angle

Dimensions (Refer to the figure below) in inches / millimeters

Front Mount to Shaft Out

Front Mount to Rear Mount

Front Mount to Gear CG

Front Mount to Engine CG

Engine CG to Crank Centerline

Mount to Crank Centerline

A

B

C

D

E

F

Front

Rear

Mount Dimensions (inches / millimeters)

Max Length

Max Width

Max Height

Allowable Deflection (inches / millimeters)

Fore-Aft

Lateral

Vertical

Shaft Output to Crank Centerline

Gear CG to Crank Centerline

Mount Spacing Side-to-Side

Down Angle

Installation Angle

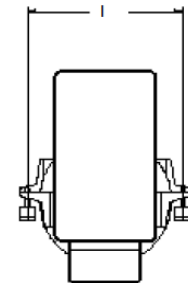
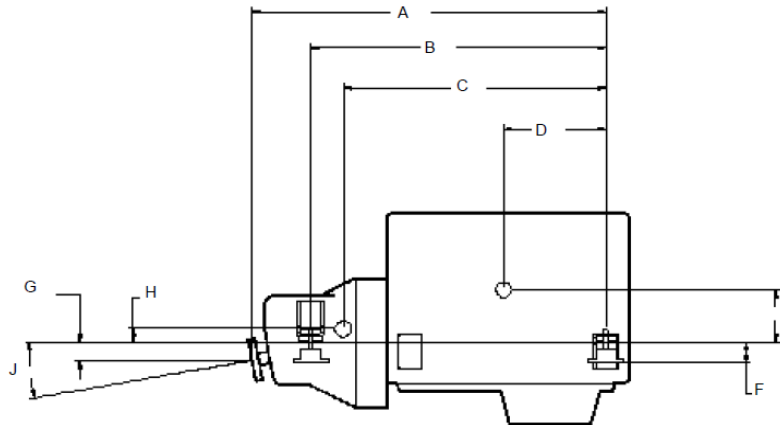
G

H

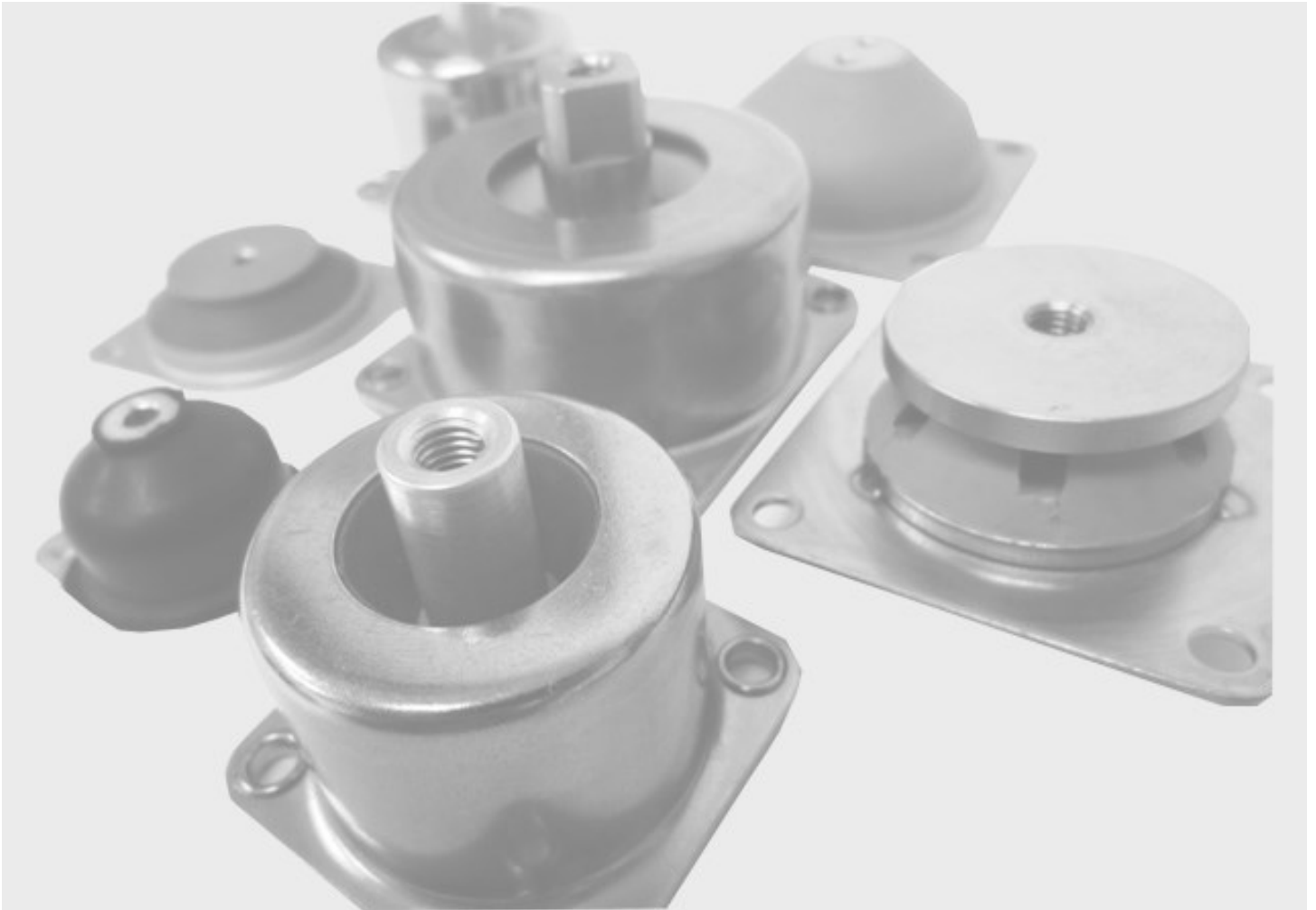
I

J

K



Notes:



GREENE RUBBER COMPANY

20 Cross Street
Woburn, MA 01801

781-937-9909
www.greenerubber.com
marketing@greenerubber.com