

*GemCool*

# VIBRATION AND NOISE CONTROL PRODUCTS



**GEMCOOL CORPORATION**

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# VMO *OPEN SPRING MOUNTS*

## ■ SPECIFICATION

VMO isolators feature steel spring isolators assembled in neoprene cups. In addition, the free standing type has neoprene acoustical friction pads 0.25” (6mm) thick beneath the base plate. The adjustment bolt for leveling is attached to the machineries which are to be isolated. Both the load plates are ribbed and of anti skid design. The cups are deep to offer maximum contact area to the load spring. Springs are color coded to identify load capacity. VMO isolators are rated from 25 kgs to 1,200 kgs. All springs are selected at 1” (25mm) deflection. Springs of other deflections are available on request.

## ■ APPLICATIONS

VMO spring mounts are suitable for installation of small force producing equipment related to air conditioning. Additionally, any equipment not subject to horizontal thrust or wind pressure can be isolated using VMO mounts. In case of lateral thrust, horizontal thrust restrains can be added to the equipment to significantly reduce the lateral load. Some equipment that can be used with VMO springs include Fan assemblies, Air Handling Equipment, Pumps and Air Compressors.

## ■ DESIGN MECHANICS

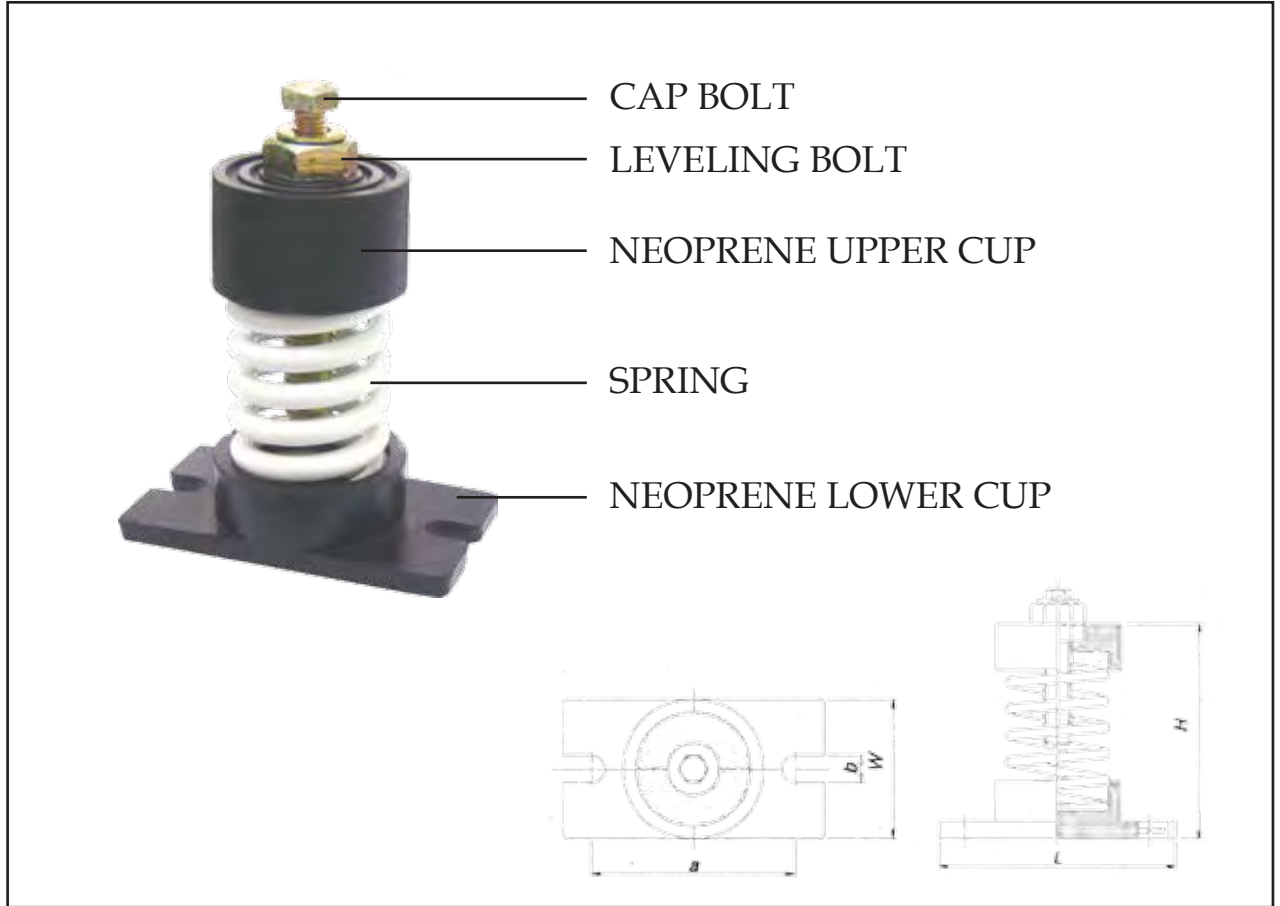
While designing VMO springs, GemCool has paid close attention to the spring characteristics to ensure equipment safety along with maximum performance. There are two characteristics of the spring that determine the performance. One is the ratio of the compressed spring height to the mean coil diameter. For good performance, it should be a minimum of 0.8. GemCool springs are designed keeping a bigger ratio in mind. The other factor in deciding the performance is the ratio of the static deflection to the compressed height. Spring has good equilibrium above a value of 1.2 and all our springs follow this factor. Finally, all springs are designed not to exceed the elastic limit when under full load. This prevent permanent deformation and allows the spring to return to its original state after the load has been removed.



This prevent permanent deformation and allows the spring to return to its original state after the load has been removed.

# VMO *OPEN SPRING MOUNTS*

## ■ VMO SERIES 1" (25MM) DEFLECTION MOUNTS



## ■ VMO SERIES 1" (25MM) DEFLECTION MOUNTS

MODEL	Rated Cap.		Rated Def.		Constant		Spring			Dimension				Bolt		
	kgs	lbs	mm	inch	kg/mm	lbs/inch	color code	OD	HT	L	W	H	a	b	Adjustment	Cap Screw
VMO-A	25	55	25	1	1.0	55	Orange	44	76	90	57	112	75	11	M16xL60	M10xL25
	50	110	25	1	2.0	110	Red									
	100	220	25	1	4.0	220	Green									
	150	330	25	1	6.0	330	Brown									
VMO-B	200	440	25	1	8.0	440	White	60	105	130	71	149	102	14	M20xL90	M12xL40
	300	660	25	1	12.0	660	Orange									
	400	880	25	1	16.0	880	Blue									
VMO-C	500	1,100	25	1	20.0	1,100	Green	73	105	151	85	158	120	14	M20xL90	M12xL40
	600	1,320	25	1	24.0	1,320	Orange									
	750	1,650	25	1	30.0	1,650	Black									
	1,000	2,200	25	1	40.0	2,200	Yellow									
	1,200	2,640	25	1	48.0	2,640	Red									

# VMH *HOUSED SPRING MOUNTS*

## ■ SPECIFICATION

Type VMH spring isolators consist of high deflection, color coded springs assembled in plated, telescoping close-grain cast iron housing complete with 0.25” (6mm) thick neoprene friction acoustic pads beneath the housing. Inner walls of lower casing incorporate bonded rubber snubbers. A leveling and adjustment bolt is part of the top assembly

## ■ APPLICATIONS

VMH springs provide an excellent solution to troublesome and complex vibration problems. These isolators filter out low natural frequencies and are designed for critical areas where the floors are light material such as thin concrete or wood. VMH springs are also suited for applications where there is high horizontal thrust or wind pressure. The semi circular neoprene snubbers limit movement during start up and shut down and prevents contact between the lower and upper housing projections. VMH isolators are designed so that the default arrangement of external adjustment can be changed to internal adjustment where required.

## ■ DESIGN MECHANICS

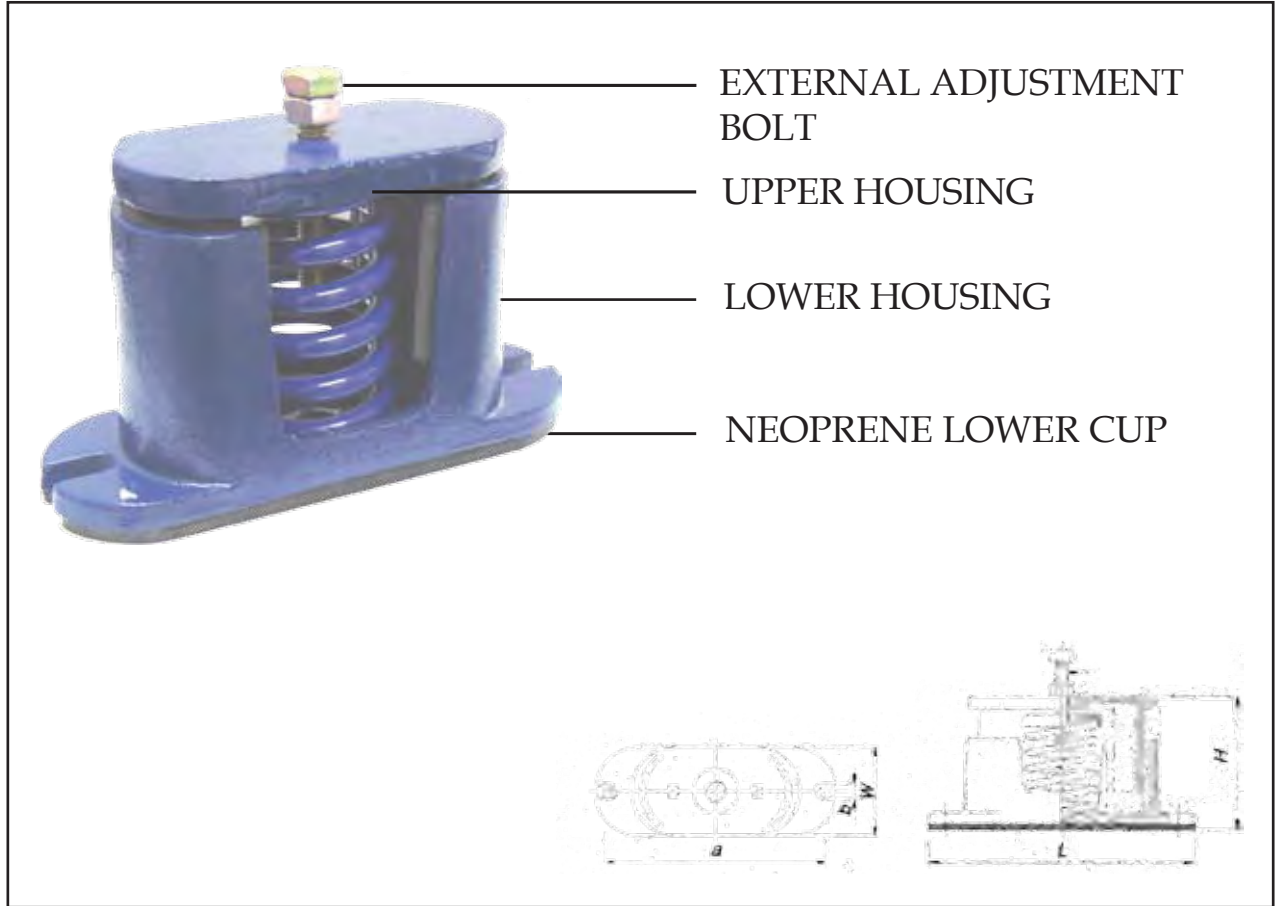
VMH springs are specifically designed to filter out low natural frequencies or in instances where the yield point of the mount is higher than the supporting floor. In normal applications where the equipment mounting holes are well centered and there is sufficient space for access from above, external adjustment mountings can be used. In case they equipment mounting holes do not align with the

VMH adjustment bolt or access is limited, internal adjustment mountings can be used. An open end wrench can be used for adjustment through the side opening.



# VMH *HOUSED SPRING MOUNTS*

## ■ VMH SERIES 1" (25MM) DEFLECTION MOUNTS



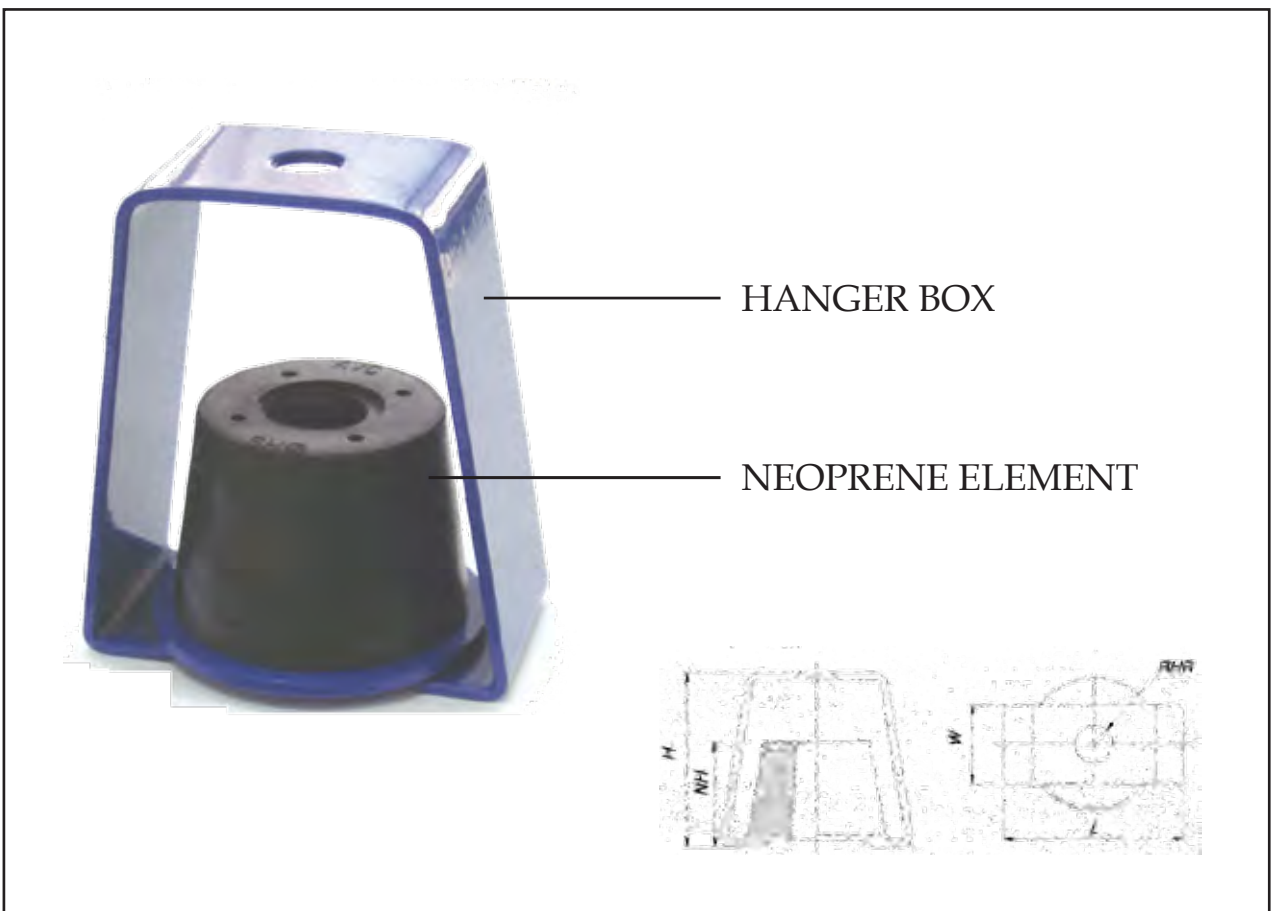
## ■ VMH SERIES LOAD SELECTION & DIMENSIONS

MODEL	Rated Cap.		Rated Def.		Constant		Spring			Dimension				Adjustment Bolt	
	kg	lbs	mm	inch	kg/mm	lbs/inch	color code	OD	HT	L	W	H	a		b
VMH-A	25	55	25	1	1.0	55	Orange	44	76	148	56	103	120	8	M10xL75
	50	110	25	1	2.0	110	Red								
VMH-B	100	220	25	1	4.0	220	Green	60	105	212	74	136	172	12	M12xL75
	150	330	25	1	6.0	330	Brown								
	200	440	25	1	8.0	440	White								
	300	660	25	1	12.0	660	Orange								
VMH-C	400	880	25	1	16.0	880	Blue	73	105	225	90	140	192	14	M16xL80
	500	1,100	25	1	20.0	1,100	Green								
	600	1,320	25	1	24.0	1,320	Orange								
	750	1,650	25	1	30.0	1,650	Black								
	1,000	2,200	25	1	40.0	2,200	Yellow								
1,200	2,640	25	1	48.0	2,640	Red									

# VNH *NEOPRENE HANGERS*

## ■ APPLICATIONS

Type VNH hangers feature epoxy powder coated steel frame incorporating neoprene in shear element. The hanger box has sufficient space to allow suspension rod misalignment. These hangers are best suited for noise and vibration control in non-critical applications. The flexibility of the VNH hangers allows it to handle upto 1,600 kgs of load.

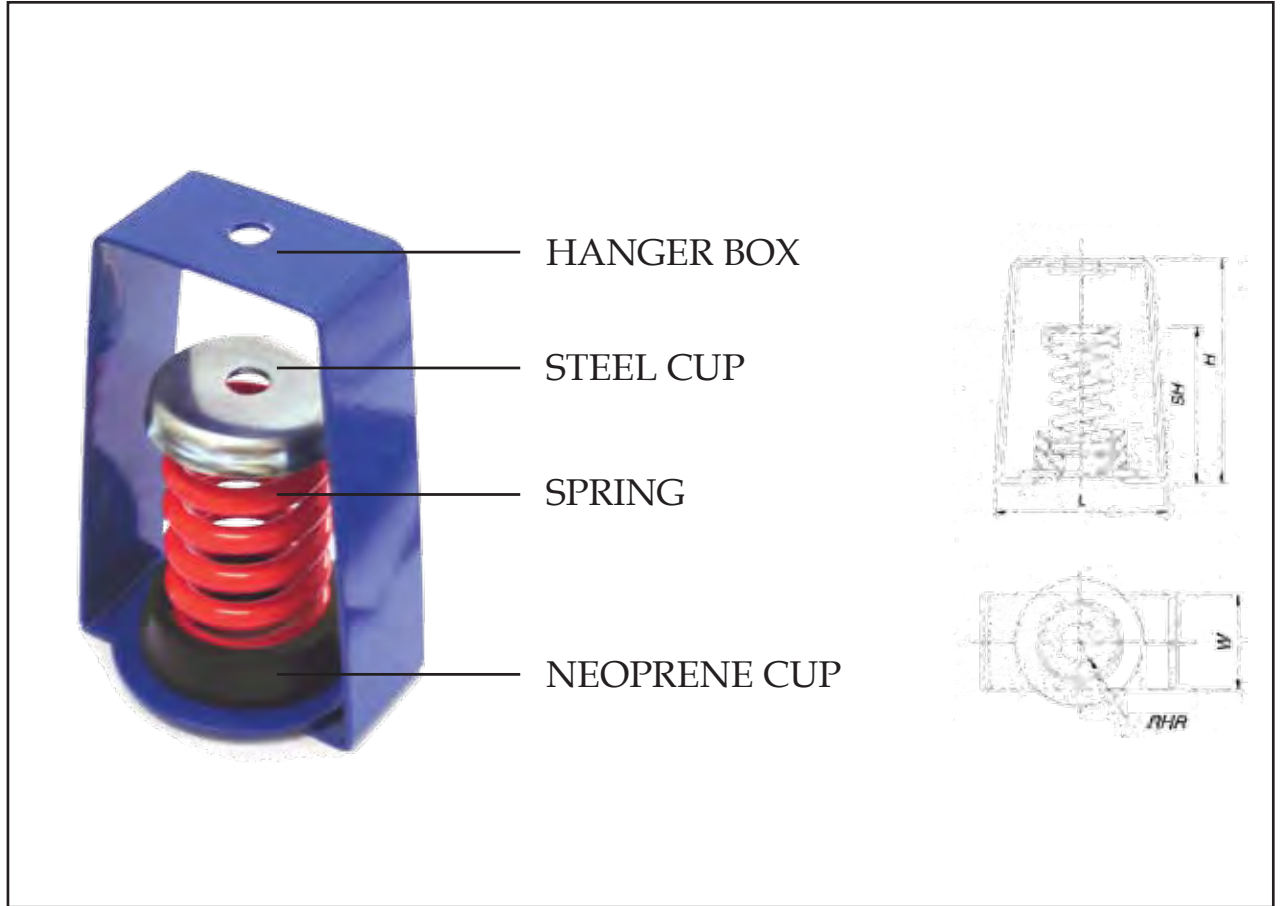


## ■ VNH LOAD SELECTION & DIMENSIONS

MODEL	Rated Cap.		Rated Def.		color code	Durometer	Dimension				
	kgs	lbs	mm	inch			L	W	H	NH	HR
VNH-A	25~100	55~220	2.5~8.0	0.10~0.30	Black	60±5	55	50	70	35	M12
VNH-B	150~300	330~660	9.0~14.0	0.35~0.55	Black		100	50	115	55	M16
VNH-C	350~750	770~1,650	12.0~20.0	0.48~0.79	Black		100	50	115	55	M18
VNH-D	900	1,980	12.0	0.48	Black		125	65	160	60	M20
VNH-E	1,600	3,520	12.0	0.48	Black		155	65	170	70	M24

# VSH *SPRING HANGERS*

## ■ VSH HANGER



## ■ VSH SERIES LOAD SELECTION

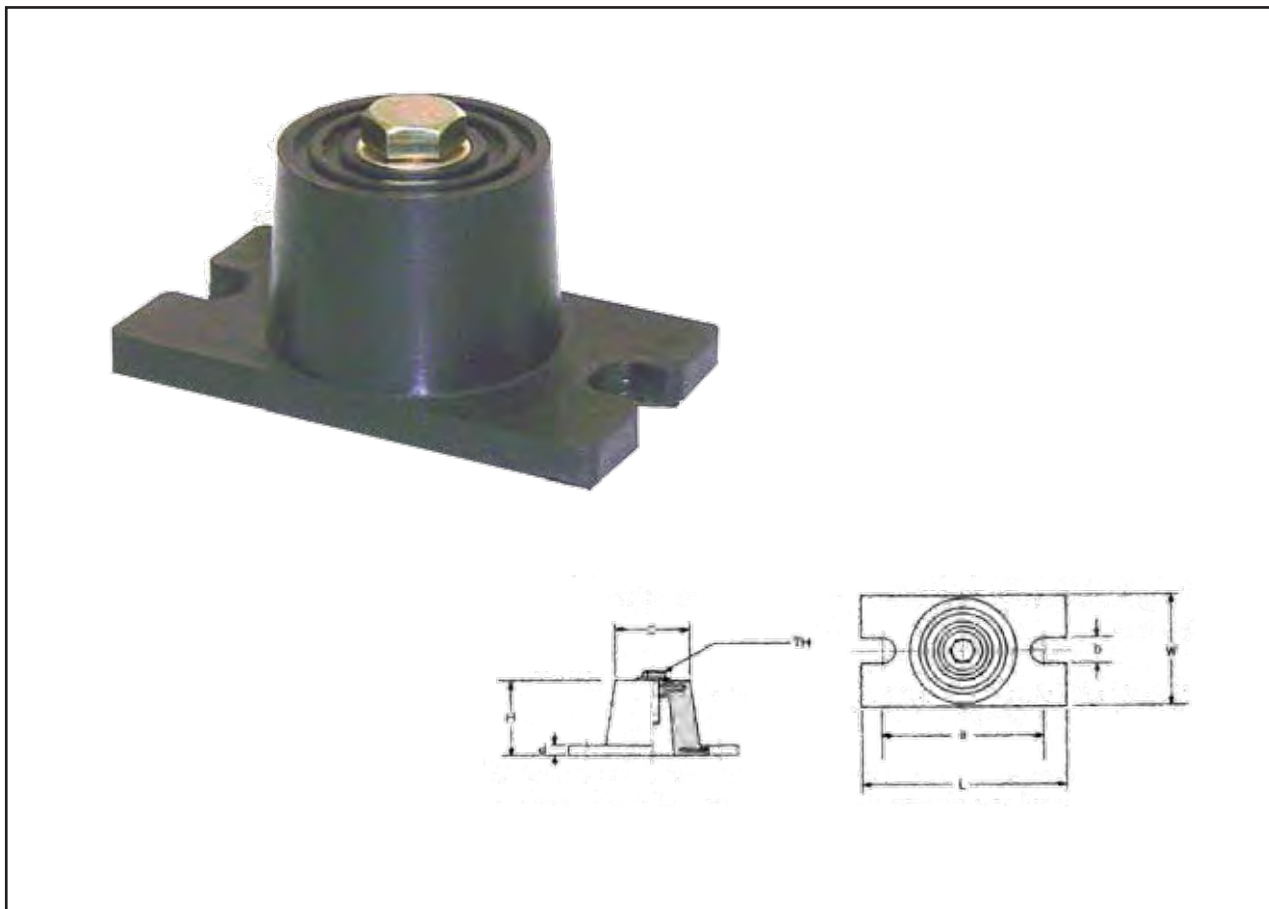
MODEL	Rated Cap.		Rated Def.		Constant		Spring			Dimension				
	kg	lbs	mm	inch	kg/mm	lbs/inch	color code	OD	HT	L	W	H	SH	HR
VSH-A	25	55	25	1	1.0	55	Orange	44	76	88	50	135	94	M10
	50	110	25	1	2.0	110	Red							
VSH-B	100	220	25	1	4.0	220	Green	60	105	121	50	178	120	M12
	150	330	25	1	6.0	330	Brown							
	200	440	25	1	8.0	440	White							
	300	660	25	1	12.0	660	Orange							
VSH-C	400	880	25	1	16.0	880	Blue	73	105	137	65	193	126	M20
	500	1,100	25	1	20.0	1,100	Green							
	600	1,320	25	1	24.0	1,320	Orange							
	750	1,650	25	1	30.0	1,650	Black							
	1,000	2,200	25	1	40.0	2,200	Yellow							
1,200	2,640	25	1	48.0	2,640	Red								



# VNMM *NEOPRENE MOUNTS*

## ■ DESIGN MECHANICS

Type VNMM mounts feature a single piece molded neoprene with embedded load distribution plate and extended steel base. The metal inserts are encapsulated thereby protecting them from corrosion. Ribbed, friction pads on the top and bottom prevent skidding. Bolt holes are provided for bolting the mounts down. VNMM mounts are suitable for low cost, non critical applications due to their effectiveness in a wide band of frequencies.

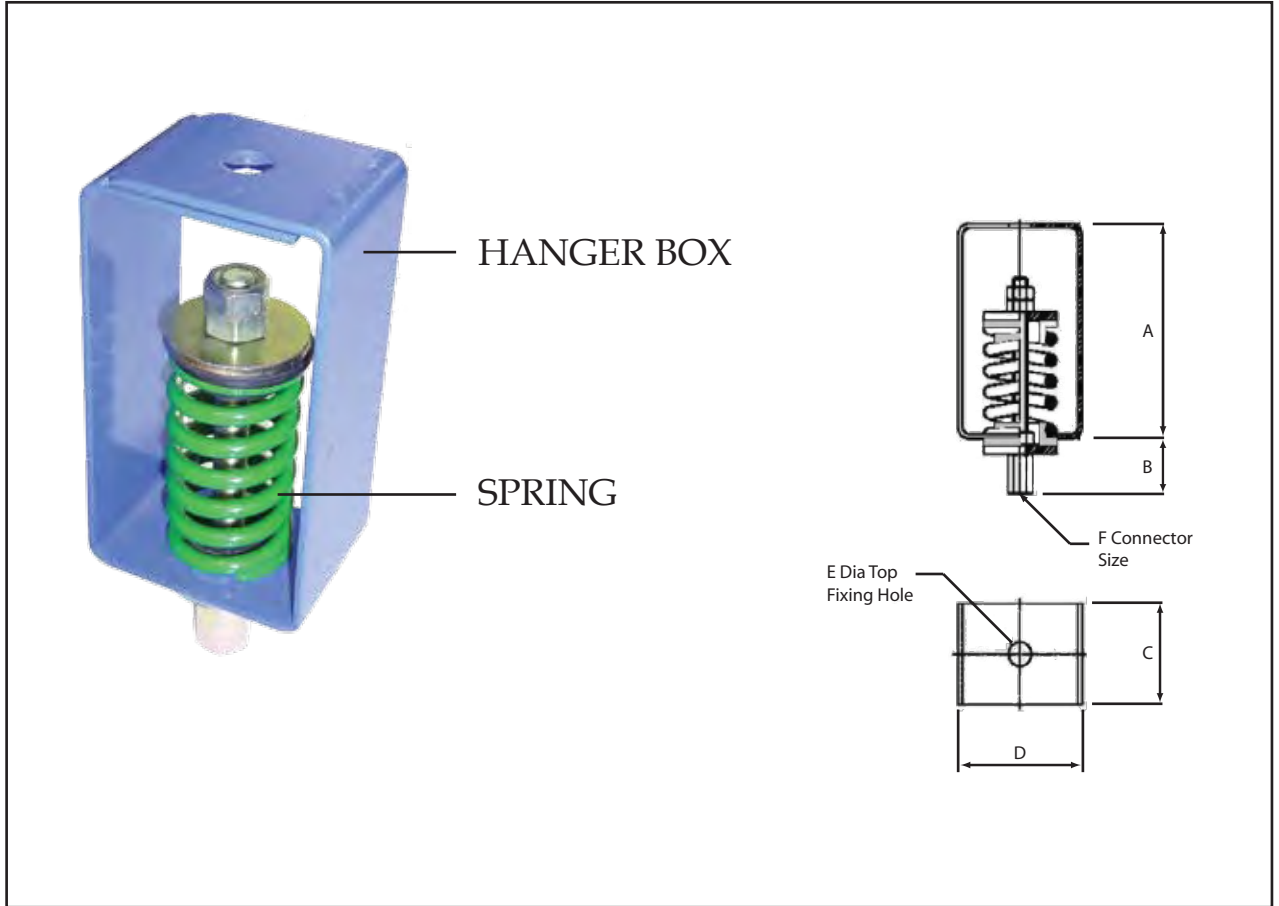


## ■ VNMM LOAD SELECTION & DIMENSIONS

MODEL	Rated Cap.		Rated Def.		Color Code	Durometer	Dimension							Setting Bolt
	kgs	lbs	mm	inch			L	W	H	a	b	c	d	
VNM-A	25~100	55~220	2.5~8.0	0.10~0.30	Black	60±5	80	41	37	65	11	30	6	M 8 x L50
VNM-B	150~300	330~660	9.0~14.0	0.35~0.55	Black		102	57	48	88	13	50	6	M10 x L50
VNM-C	350~750	770~1,650	12.0~20.0	0.48~0.79	Black		146	82	64	120	15	67	10	M12 x L50
VNM-D	900	1,980	12.0	0.48	Black		160	100	64	130	15	85	10	M12 x L50
VNM-E	1,600	3,520	12.0	0.48	Black		192	130	70	160	15	115	10	M12 x L50

# GSH *SPRING HANGERS*

## ■ GSH HANGER



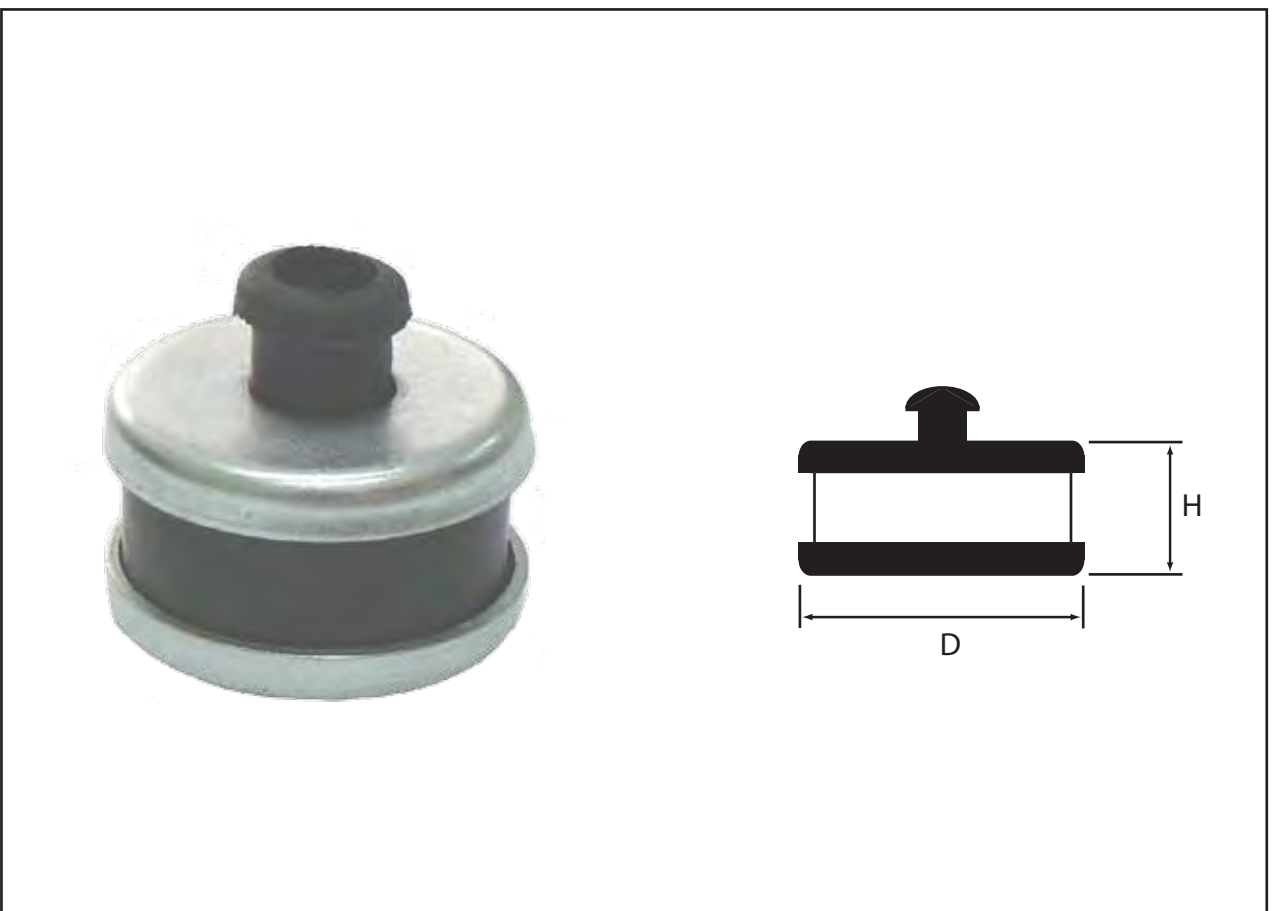
## ■ GSH SERIES LOAD SELECTION

Part No.	Color Code	Rated Load (kg)	Deflection At Rated	DIMENSIONS (mm)						Wt. (kg)
				A	B	C	D	E	F	
GSH 20/40	Green	40	20	100	30.5	40	55	10	M10	0.35
GSH 20/70	Red	70	20							
GSH 20/100	Blue	100	15							

# VDM *DUCT MOUNTS*

## ■ DESIGN MECHANICS

Type VDM duct mounts feature resilient rubber grommet with steel load distribution cups and extended sleeve. They are designed to reduce transmission of structure-borne noise from air ducts and suspended equipment / small pipes. The extended sleeve of the rubber element prevents contact between the suspension rod and the suspension bracket. VDM mounts are best suited to isolate high frequency vibration and to control transmission of noise to the surrounding structures.



## ■ VDM LOAD SELECTION & DIMENSIONS

Isolator Model	Capacity (kg)	Dimensions (mm)		Recommended Suspension Rod
		H	D	
VDM-L	30	26	32	M8
VDM-A1	30	21	32	M10
VDM-A2	50	27	44	M10

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Due to Gemcool's continuous efforts to innovate and improve its products, we reserve the right to modify any data or specification without any notification.

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