

# KINETICS®

## 1" and 2" Deflection Isolation Hangers Model SH

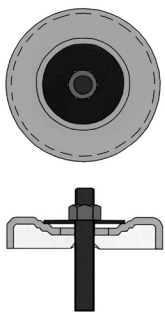
- Polyester Powder Coated Bracket and Spring Coil
- Self-Centering Cap Patent No. 5,653,426

### Application

Kinetics Model SH Hangers are recommended for use in isolating suspending sources of inaudible frequency vibration, located near critical vibration free areas. Suspended mechanical equipment such as in-line fans, cabinet fans, and piping and ductwork in close proximity to mechanical equipment are typical uses of Model SH hangers featuring the patented *No-Short self-centering cap*.

Standard Model SH hangers are shipped fully assembled and ready for installation in threaded metal rod suspension systems.

Model SH hangers are available in a wide range of load and static deflection selections and can be provided with labor-saving accessories for adaption to wire or strap suspension systems, and spring may be preloaded for ease in erecting piping at a fixed elevation.



### How the self centering no short cap works:

Indexed steps in spring cap correspond to standard washer diameters for the appropriate rod diameter. The washer and rod stay centered in the cap.



### Description

Kinetics Model SH Vibration Isolation Hangers are designed to reduce the transmission of vibration and noise produced by suspended equipment and piping. SH Hangers incorporate a high deflection color-coded spring element, a “*no short*” spring cap, and noise isolation pad, assembled into a stamped or welded hanger bracket. To assure stability, the spring element has a minimum lateral spring stiffness of 1.0 times the rated vertical stiffness. SH Hangers will allow a support rod misalignment through a 30° arc without short-circuiting. Isolation brackets will carry a 500% overload without failure. Hangers are available in deflections from 1" to 2" (25 to 51 mm) and in capacities from 35 to 3,500 lbs. (16 to 1588 kg) for 1" and 35 to 3250 lbs. (16 to 1475 kg) for 2" deflection hangers. SH Hangers are effective in isolating vibration produced by low rpm equipment. Kinetics Model SH Hangers are recommended for the isolation of vibration produced by suspended mechanical equipment, in-line and exhaust fans, ductwork, piping, etc.

## Specifications

Vibration isolators for suspended equipment, with minimum static deflection requirement exceeding 0.4" (10 mm), shall be hangers consisting of a free-standing, laterally stable steel spring and elastomeric washer in series, assembled in a stamped or welded steel bracket.

The bracket shall be finished with an polyester powder coating. The manufacturer shall provide (upon request) independent laboratory testing showing that the bracket with this finish has endured a minimum of 1,000 hours of exposure to salt spray fog testing per ASTM B117 without signs of corrosion.

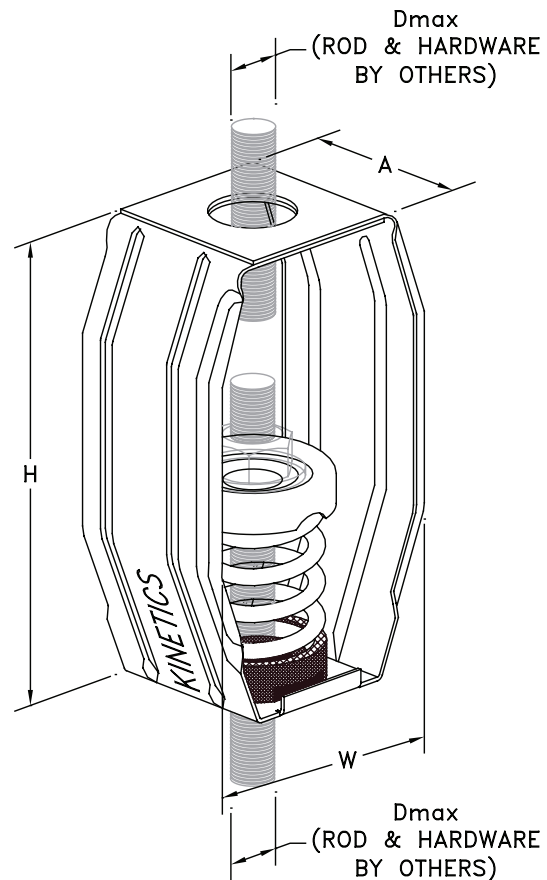
The hanger bracket shall be designed to carry a 500% overload without failure and to allow a support rod misalignment through a 30° arc without metal-to-metal contact or other short circuit.

The isolation hanger shall incorporate spring caps with indexed steps which correspond to the washer diameter of the appropriately sized hanger rod which serve to keep the rod centered in the spring cap and reduce rod misalignment. The spring caps are protected under U.S. patent number 5,653,426.

Springs shall have a minimum lateral stiffness of 1.0 times the rated vertical stiffness.

Springs shall be selected to provide operating static deflections shown on the Vibration Isolation Schedule or as indicated on the project documents. Springs shall be color coded or otherwise identified to indicate load capacity.

Vibration isolation hangers shall be Model SH, as manufactured by Kinetics Noise Control, Inc.



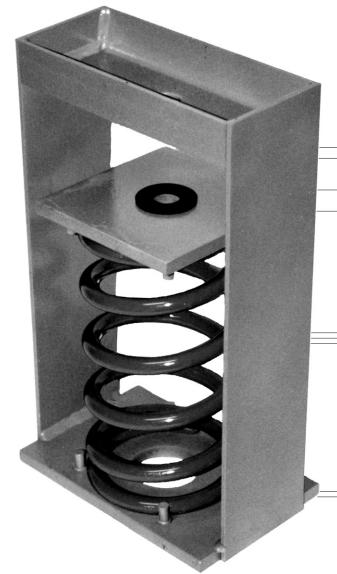
Hanger Type	Spring Color	Spring O.D.		Load		Deflection		Free HT		H		W		A		Dmax	
		in	mm	lbs	kg	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
SH-1-35	Blue	1.75	44	35	16	1.52	39	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-70	Green	1.75	44	70	32	1.36	35	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-125	Gray	1.75	44	125	57	1.23	31	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-245	Brown	1.75	44	245	111	1.19	30	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-370	Orange	1.75	44	370	168	0.96	24	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-500	Beige	1.75	44	500	227	1.00	25	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-600	Chrome	1.75	44	600	272	1.00	25	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-700	Beige/Wht	1.75	44	700	318	1.00	25	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-805	Chrm/Wht	1.75	44	805	365	1.01	26	3.19	81	5.25	133	3.69	94	2.25	57	0.63	16
SH-1-50	Beige	3.00	76	50	23	1.00	25	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-100	Chrome	3.00	76	100	45	1.00	25	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-250	Blue	3.00	76	250	113	1.79	45	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-450	Green	3.00	76	450	204	1.54	39	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-625	Black	3.00	76	625	283	1.44	37	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-800	Gray	3.00	76	800	363	1.31	33	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-1000	Red	3.00	76	1000	454	1.15	29	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-1250	Brown	3.00	76	1250	567	1.09	28	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-1700	Orange	3.00	76	1700	771	0.95	24	4.20	107	8.59	218	5.58	142	3.63	92	1.00	25
SH-1-2200	Org/Gray	3.00	76	2200	998	1.00	26	4.20	107	9.50	241	5.00	127	4.75	121	1.00	25
SH-1-2465	Blue	3.00	76	2465	1118	1.00	25	4.20	107	9.50	241	5.00	127	4.75	121	1.00	25
SH-1-2865	Blue/Gry	3.00	76	2865	1300	1.00	25	4.20	107	9.50	241	5.00	127	4.75	121	1.00	25
SH-1-3500	Blue/Brn	3.00	76	3500	1588	1.00	25	4.20	107	9.50	241	5.00	127	4.75	121	1.00	25
SH-2-35	Blue	1.75	44	35	16	2.00	51	4.13	105	7.38	187	3.69	94	2.25	57	0.50	13
SH-2-70	Green	1.75	44	70	32	2.00	51	4.13	105	7.38	187	3.69	94	2.25	57	0.50	13
SH-2-120	Gray	1.75	44	120	54	2.00	51	4.13	105	7.38	187	3.69	94	2.25	57	0.50	13
SH-2-220	Brown	1.75	44	220	100	2.00	51	4.13	105	7.38	187	3.69	94	2.25	57	0.50	13
SH-2-260	Blue	3.00	76	260	118	2.21	56	4.20	107	8.59	218	5.58	142	3.63	92	0.88	22
SH-2-465	Green	3.00	76	465	211	2.01	51	4.20	107	8.59	218	5.58	142	3.63	92	0.88	22
SH-2-720	Black	3.00	76	720	327	2.07	53	4.20	107	8.59	218	5.58	142	3.63	92	0.88	22
SH-2-850	White	3.00	76	850	386	1.97	50	4.25	108	8.59	218	5.58	142	3.63	92	0.88	22
SH-2-1025	Beige	3.00	76	1025	465	1.99	51	4.25	108	8.59	218	5.58	142	3.63	92	0.88	22
SH-2-1200	Chrome	3.00	76	1200	544	2.00	51	4.50	114	8.59	218	5.58	142	3.63	92	0.88	22
SH-2-2000	Orange	5.00	127	2000	909	2.00	51	7.00	178	12.00	305	6.00	152	6.00	152	1.00	25
SH-2-2500	Blue	5.00	127	2500	1136	2.00	51	7.00	178	12.00	305	6.00	152	6.00	152	1.00	25
SH-2-2750	Blu/Blu	5.00	127	2750	1250	2.00	51	7.00	178	12.00	305	6.00	152	6.00	152	1.00	25
SH-2-3025	Blu/Grn	5.00	127	3025	1375	2.02	51	7.00	178	12.00	305	6.00	152	6.00	152	1.00	25
SH-2-3250	Blu/Blk	5.00	127	3250	1477	2.00	51	7.00	178	12.00	305	6.00	152	6.00	152	1.00	25



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# KINETICS®

## 4" Deflection Isolation Hangers Model SH



### Description

Kinetics Model SH Vibration Isolation Hangers are designed to reduce the transmission of vibration and noise produced by suspended equipment and piping. SH Hangers incorporate a high deflection color-coded spring element, load transfer plate, and noise isolation pad, assembled into a stamped or welded hanger bracket. To assure stability, the spring element has a minimum lateral spring stiffness of 1.0 times the rated vertical stiffness. Springs are polyester powder coated, with a 1000-hour salt spray rating per ASTM B-117. SH Hangers will allow a support rod misalignment through a 30° arc without short circuiting. Isolation brackets will carry a 500% overload without failure. Hangers are available in deflections of 4.00" (102 mm) and in capacities from 100 to 3850 lbs. (46 to 1747 kg). SH Hangers are effective in isolating vibration produced by low rpm equipment. Kinetics Model SH Hangers are recommended for the isolation of vibration produced by suspended mechanical equipment, in-line and exhaust fans, ductwork, piping, etc.

### Application

Kinetics Model SH Hangers are recommended for use in isolating suspending sources of inaudible frequency vibration located near critical vibration free areas.

Suspended mechanical equipment such as in-line fans, cabinet fans, and piping and ductwork in close proximity to mechanical equipment are typical uses of Model SH hangers.

Standard Model SH hangers are shipped fully assembled and ready for installation in threaded metal rod suspension systems.

Model SH hangers are available in a wide range of load and static deflection selections and can be provided with labor-saving accessories for adaption to wire or strap suspension systems, and spring may be preloaded for ease in erecting piping at a fixed elevation.

Hanger Type	Spring Color	Rated Load		Deflection		Free HT		Spring O.D.		H		W		A		Dmax	
		lbs	kg	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
SH-4-100	Gray	100	45	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-250	Blue	250	114	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-500	Green	500	227	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-750	Black	750	341	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-1000	Red	1000	454	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-1250	Brown	1250	568	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-1600	Orange	1600	726	4.00	102	10.00	254	5.63	143	16.00	406	9.38	238	6.00	152	0.88	22
SH-4-2250	Beige	2250	1023	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25
SH-4-2500	Bge/Blu	2500	1135	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25
SH-4-2750	Bge/Grn	2750	1249	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25
SH-4-3000	Bge/Blk	3000	1362	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25
SH-4-3250	Bge/Red	3250	1476	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25
SH-4-3500	Bge/Brn	3500	1589	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25
SH-4-3850	Bge/org	3850	1748	4.00	102	11.50	292	8.00	203	18.50	470	13.50	343	8.00	203	1.00	25

## Specifications

Vibration isolators for suspended equipment, with minimum static deflection requirement exceeding 0.4" (10 mm) shall be hangers consisting of a free-standing, laterally stable steel spring and elastomeric washer in series, assembled in a stamped or welded steel bracket.

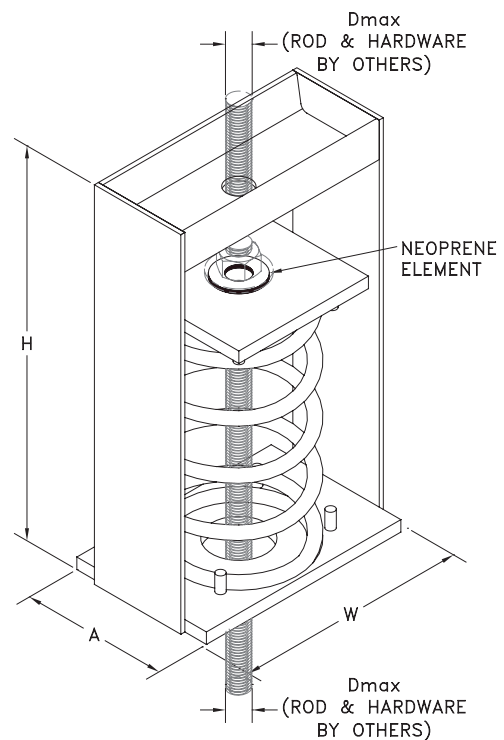
The bracket shall be finished with an polyester powder coating. The manufacturer shall provide independent laboratory testing showing that the bracket with this finish has endured a minimum of 1,000 hours of exposure to salt spray fog testing per ASTM B117 without signs of corrosion.

The hanger bracket shall be designed to carry a 500% overload without failure and to allow a support rod misalignment through a 30° arc without metal-to-metal contact or other short circuit.

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