

# Kinetics SH 102mm Deflection Isolation Hangers

## Technical Data Sheet

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 colour-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 102mm and in capacities from 45 to 1748kg. 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.

### APPLICATIONS

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..

### SPECIFICATIONS

Vibration isolators for suspended equipment, with minimum static deflection requirement exceeding 10mm 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.

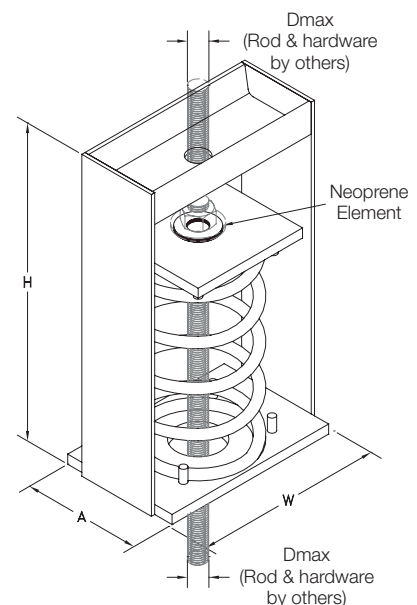
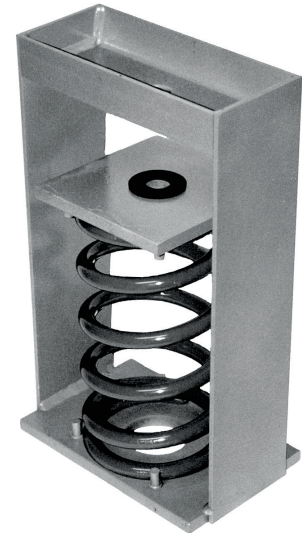
The bracket shall be finished with an polyester powder coating. The manufacturer shall provide independent laboratory testing showing that the bracket with this finish has endured a minimum of 1,000 hours of exposure to salt spray fog testing per ASTM B117 without signs of corrosion.

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.

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 colour coded or otherwise identified to indicate load capacity.

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



## Kinetics SH Deflection Isolation Hangers - 102mm

Hanger Type	Spring Colour	Spring O.D. (mm)	Load (kg)	Deflection (mm)	Free HT (mm)	H (mm)	W (mm)	A (mm)	Dmax (mm)
SH-4-100	Grey	143	45	102	254	406	238	152	22
SH-4-250	Blue	143	114	102	254	406	238	152	22
SH-4-500	Green	143	227	102	254	406	238	152	22
SH-4-750	Black	143	341	102	254	406	238	152	22
SH-4-1000	Red	143	454	102	254	406	238	152	22
SH-4-1250	Brown	143	568	102	254	406	238	152	22
SH-4-1600	Orange	143	726	102	254	406	238	152	22
SH-4-2250	Beige	203	1023	102	292	470	343	203	25
SH-4-2500	Beige/Blue	203	1135	102	292	470	343	203	25
SH-4-2750	Beige/Green	203	1249	102	292	470	343	203	25
SH-4-3000	Beige/Black	203	1362	102	292	470	343	203	25
SH-4-3250	Beige/Red	203	1476	102	292	470	343	203	25
SH-4-3500	Beige/Brown	203	1589	102	292	470	343	203	25
SH-4-3850	Beige/Orange	203	1748	102	292	470	343	203	25



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# Kinetics SH 25 & 51mm Deflection Isolation Hangers

## Technical Data Sheet

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 colour-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 25 to 51mm and in capacities from 16 to 1588kg for 25mm and 16 to 1477kg for 51mm 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.

### APPLICATIONS

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.

### SPECIFICATIONS

Vibration isolators for suspended equipment, with minimum static deflection requirement exceeding 10mm, 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.

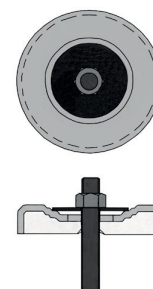
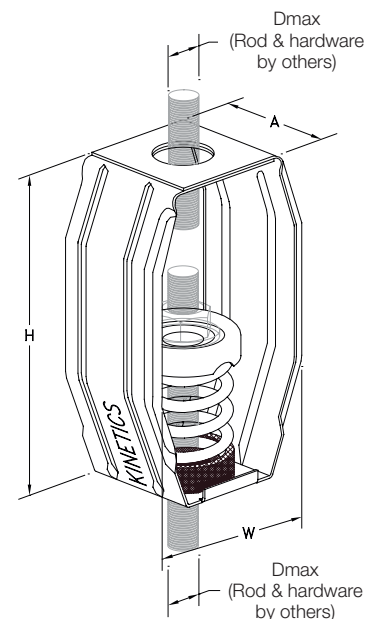
The hanger bracket shall be designed to carry a 500% overload without failure and to allow a support rod misalignment through a 30° arc without metal-to-metal contact or other short circuit.

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 colour coded or otherwise identified to indicate load capacity.

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



#### 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.

## Kinetics SH Deflection Isolation Hangers - 25 & 51mm

Hanger Type	Spring Colour	Spring O.D. (mm)	Load (kg)	Deflection (mm)	Free HT (mm)	H (mm)	W (mm)	A (mm)	Dmax (mm)
SH-1-35	Blue	44	16	39	81	133	94	57	16
SH-1-70	Green	44	32	35	81	133	94	57	16
SH-1-125	Grey	44	57	31	81	133	94	57	16
SH-1-245	Brown	44	111	30	81	133	94	57	16
SH-1-370	Orange	44	168	24	81	133	94	57	16
SH-1-500	Beige	44	227	25	81	133	94	57	16
SH-1-600	Chrome	44	272	25	81	133	94	57	16
SH-1-700	Beige/White	44	318	25	81	133	94	57	16
SH-1-805	Chrome/White	44	365	26	81	133	94	57	16
SH-1-50	Beige	76	23	25	107	218	142	92	25
SH-1-100	Chrome	76	45	25	107	218	142	92	25
SH-1-250	Blue	76	113	45	107	218	142	92	25
SH-1-450	Green	76	204	39	107	218	142	92	25
SH-1-625	Black	76	283	37	107	218	142	92	25
SH-1-800	Grey	76	363	33	107	218	142	92	25
SH-1-1000	Red	76	454	29	107	218	142	92	25
SH-1-1250	Brown	76	567	28	107	218	142	92	25
SH-1-1700	Orange	76	771	24	107	218	142	92	25
SH-1-2200	Orange/Grey	76	998	26	107	241	127	121	25
SH-1-2465	Blue	76	1118	25	107	241	127	121	25
SH-1-2865	Blue/Grey	76	1300	25	107	241	127	121	25
SH-1-3500	Blue/Brown	76	1588	25	107	241	127	121	25
SH-2-35	Blue	44	16	51	105	187	94	57	13
SH-2-70	Green	44	32	51	105	187	94	57	13
SH-2-120	Grey	44	54	51	105	187	94	57	13
SH-2-220	Brown	44	100	51	105	187	94	57	13
SH-2-260	Blue	76	118	56	107	218	142	92	22
SH-2-465	Green	76	211	51	107	218	142	92	22
SH-2-720	Black	76	327	53	107	218	142	92	22
SH-2-850	White	76	386	50	108	218	142	92	22
SH-2-1025	Beige	76	465	51	108	218	142	92	22
SH-2-1200	Chrome	76	544	51	114	218	142	92	22
SH-2-2000	Orange	127	909	51	178	305	152	152	25
SH-2-2500	Blue	127	1136	51	178	305	152	152	25
SH-2-2750	Blue/Blue	127	1250	51	178	305	152	152	25
SH-2-3025	Blue/Green	127	1375	51	178	305	152	152	25
SH-2-3250	Blue/Black	127	1477	51	178	305	152	152	25



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