

Memtech Acoustics

SRH

DEFLECTION ISOLATION HANGERS

FEATURES

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

APPLICATION

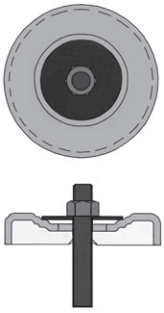
SRH hangers are used to isolate suspended sources of both audible and inaudible noise and vibration. Typical applications include suspended mechanical equipment such as in-line fans, cabinet fans, and piping and ductwork located in close proximity to vibration-generating equipment.

The manufacturer recommends installing spring hangers on all piping within the equipment room and on the first 50 ft (15 m) of piping extending beyond the equipment room. For typical installations, the three hangers closest to the equipment should have the same deflection as the equipment isolators, while the remaining hangers should have a minimum deflection of 1 in. (25 mm). In noise-sensitive areas, hangers should match the deflection of the equipment isolation, and all piping within the building should be isolated.

SRH hangers can also be used to isolate high sound transmission loss ceiling systems when installed within the ceiling suspension system.

Standard SRH hangers are shipped fully assembled and ready for installation in threaded metal rod suspension systems. A wide range of load and static deflection options are available, along with accessories for wire or strap suspension systems. Springs may also be preloaded to simplify installation where piping must be set 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.

SPECIFICATION

Vibration isolators for suspended equipment with minimum static deflection requirement exceeding 0.4" (10 mm), and where both high and low frequency vibrations are to be isolated, shall be hangers consisting of a laterally stable steel spring in series with an elastomer-in-shear insert complete with load transfer plates and assembled in a stamped or welded steel bracket. The bracket shall be finished with a polyester powder coating and 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 elastomer insert shall be molded from oil-resistant compounds and shall be color coded to indicate load capacity and selected to operate within its published load range.

The spring element shall be free-standing, laterally stable, and designed with a minimum lateral stiffness of not less than 1.0 times the rated vertical stiffness. Springs shall be manufactured from high-strength spring steel, be square and ground at the ends for stability, and shall have a minimum additional travel to solid equal to at least 50% of the rated deflection. Springs shall be designed to provide a minimum of 50% overload capacity, be color coded or otherwise identified to indicate load capacity, and shall be supported by load transfer plates incorporating elastomeric elements to prevent metal-to-metal contact.

The hanger bracket assembly shall be fabricated from stamped or welded steel and shall be designed to carry a minimum of 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 hanger bracket shall incorporate a self-centering spring cap or equivalent device to maintain rod alignment and prevent short-circuiting of the isolation system. All components shall be designed to prevent metal-to-metal contact under all operating conditions and shall be corrosion protected.

The complete isolation hanger assembly shall be selected by the manufacturer for each specific application to comply with deflection requirements as shown on the project documents. The combination isolation hanger assembly with rubber insert shall be Model SRH, as manufactured.

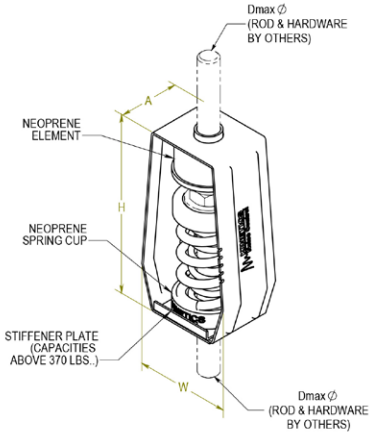
DESCRIPTION

SRH vibration isolation hangers consist of free-standing, large-diameter, laterally stable steel springs in series with an elastomer-in-shear element, assembled within a durable stamped or welded hanger bracket. This combination design provides effective isolation of both low-frequency vibration and higher-frequency noise, outperforming hangers that rely solely on springs or elastomeric pads.

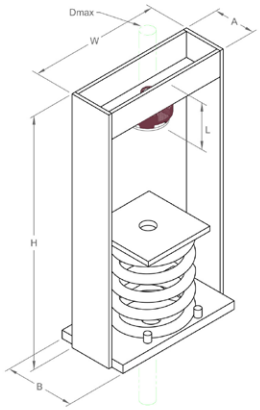
Each hanger incorporates a high-deflection, color-coded spring element with load transfer plates to ensure predictable performance. The spring is designed with a minimum lateral stiffness equal to its vertical stiffness, allowing up to 30° of support rod misalignment without short-circuiting the isolation system. Springs are polyester powder coated for corrosion resistance and durability.

SRH hangers are available in a wide range of load capacities and static deflections, from approximately 1" to over 4", to accommodate a variety of suspended equipment and system requirements. Isolation brackets are designed to withstand up to 500% overload without failure, ensuring reliability in demanding applications.

Available on request from Memtech Acoustics



SRH-1-12/805



SRH-4-100/3850

DIMENSIONS AND CAPACITIES

Standard Ratings						Dimensions							
Hanger Type	Spring Color	Load		Deflection		A		H		W		Dmax	
		lbs	kg	in	mm	in	mm	in	mm	in	mm	in	mm
SRH-1-12	Silver	12	5	1.03	26	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-18	Yellow	18	8	1.06	27	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-30	Blue	30	14	1.08	27	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-24 (35)	Blue	24	11	1.10	28	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-37	White	37	17	1.10	28	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-50 (70)	Green	50	23	1.10	28	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-75	Black	75	34	1.21	31	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-125	Gray	125	57	1.55	39	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-150	Red	150	68	1.28	32	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-245	Brown	245	111	1.59	40	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-300	Purple	300	136	1.49	38	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-385 (370)	Orange	385	175	1.41	36	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-500	Beige	500	227	1.45	37	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-600	Chrome	600	272	1.35	34	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-700	Beige/White	700	318	1.40	36	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-805	Chrm/White	805	365	1.25	32	2.00	51	5.92	150	3.11	79	0.63	16
SRH-1-50	Beige	50	23	1.13	29	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-100	Chrome	100	45	1.19	30	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-140 (250)	Blue	140	64	1.23	31	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-293 (450)	Green	293	133	1.31	33	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-434 (625)	Black	434	197	1.29	33	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-611 (800)	Gray	611	277	1.18	30	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-870 (1000)	Red	870	395	1.26	32	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-1147 (1250)	Brown	1147	520	1.27	32	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-1790 (1700)	Orange	1790	812	1.42	36	3.63	92	8.59	218	5.58	142	0.88	22
SRH-1-2190 (2200)	Org/Gray	2190	993	1.52	39	4.75	121	9.50	241	5.00	127	0.88	22
SRH-1-2465	Blue	2465	1118	1.58	40	4.75	121	9.50	241	5.00	127	0.88	22
SRH-1-2865	Blue/Gry	2865	1300	1.67	43	4.75	121	9.50	241	5.00	127	0.88	22
SRH-1-3500	Blue/Brn	3500	1588	1.82	46	4.75	121	9.50	241	5.00	127	0.88	22
SRH-2-35	Blue	35	16	2.09	53	2.25	57	7.38	187	3.69	94	0.63	16
SRH-2-70	Green	70	32	2.19	56	2.25	57	7.38	187	3.69	94	0.63	16
SRH-2-120	Gray	120	54	2.32	59	2.25	57	7.38	187	3.69	94	0.63	16
SRH-2-220	Brown	220	100	2.29	58	2.25	57	7.38	187	3.69	94	0.63	16
SRH-2-260	Blue	260	118	2.21	56	3.63	92	8.59	218	5.58	142	0.88	22
SRH-2-465	Green	465	211	2.01	51	3.63	92	8.59	218	5.58	142	0.88	22
SRH-2-720	Black	720	327	2.08	53	3.63	92	8.59	218	5.58	142	0.88	22
SRH-2-850	White	850	386	1.97	50	3.63	92	8.59	218	5.58	142	0.88	22
SRH-2-1025	Beige	1025	465	1.99	51	3.63	92	8.59	218	5.58	142	0.88	22
SRH-2-1200	Chrome	1200	544	2.00	51	3.63	92	8.59	218	5.58	142	0.88	22
SRH-2-2000	Orange	2000	909	2.08	53	6.00	152	12.00	305	6.00	152	1.00	25
SRH-2-2500	Blue	2500	1136	2.10	53	6.00	152	12.00	305	6.00	152	1.00	25
SRH-2-2750	Blu/Blu	2750	1250	2.12	54	6.00	152	12.00	305	6.00	152	1.00	25
SRH-2-3025	Blu/Grn	3025	1375	2.14	54	6.00	152	12.00	305	6.00	152	1.00	25
SRH-2-3250	Blu/Blk	3250	1477	2.14	54	6.00	152	12.00	305	6.00	152	1.00	25
SRH-4-100	Gray	100	45	4.09	104	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-250	Blue	250	114	4.22	107	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-500	Green	500	227	4.15	105	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-750	Black	750	341	4.22	107	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-1000	Red	1000	454	4.30	109	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-1250	Brown	1250	568	4.37	111	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-1600	Orange	1600	726	4.38	111	4.00	102	16.00	406	9.38	238	0.88	22
SRH-4-2250	Beige	2250	1023	4.53	115	6.00	152	18.50	470	13.50	343	0.88	22
SRH-4-2500	Bge/Blu	2500	1135	4.59	117	6.00	152	18.50	470	13.50	343	0.88	22
SRH-4-2750	Bge/Grn	2750	1249	4.65	118	6.00	152	18.50	470	13.50	343	0.88	22
SRH-4-3000	Bge/Blk	3000	1362	4.13	105	6.00	152	18.50	470	13.50	343	1.00	25
SRH-4-3250	Bge/Red	3250	1476	4.14	105	6.00	152	18.50	470	13.50	343	1.00	25
SRH-4-3500	Bge/Brn	3500	1589	4.14	105	6.00	152	18.50	470	13.50	343	1.00	25
SRH-4-3850	Bge/Org	3850	1748	4.16	106	6.00	152	18.50	470	13.50	343	1.00	25

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