

Kinetics SRH 25 & 51mm Deflection Isolation Hangers

Technical Data Sheet

Kinetics SRH vibration isolation hangers consist of free-standing, large diameter, laterally stable steel springs in series with an elastomer-in-shear insert, 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. Hangers with properly deflected coils 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 30 to 61mm, and in capacities from 16 to 1588kg. Model SRH hangers are superior to hangers which incorporate only springs, which can transmit noise through the all metal construction, and hangers which incorporate only pads, which can transmit low frequency vibration. Kinetics Model SRH hangers are recommended for the isolation of vibration produced by suspended mechanical equipment, low-speed suspended fans, transformers, ductwork, piping, etc.

APPLICATIONS

Kinetics SRH hangers are used to isolate suspended sources of both noise and vibration. Typical uses include suspended mechanical equipment such as inline fans, cabinet fans, and piping and ductwork in close proximity to mechanical equipment. SRH hangers feature Kinetics patented No-Short self-centering cap.

Kinetics' minimum recommendation for the placement of spring hangers is that they be installed on all piping in the equipment room and on the first 15m for piping that extends outside of the equipment room. For typical installations, the three spring hangers closest to the equipment should have equal deflection to the equipment isolators. The remaining spring hangers should have a minimum deflection of 25mm. In noise sensitive areas, the pipe hangers selected should have the same deflection as that specified for the equipment isolation and all piping in the building should be isolated.

High sound transmission loss ceiling systems can be isolated by the use of SRH hangers in the ceiling suspension system.

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

Model SRH 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, and where both high and low frequency vibrations are to be isolated, shall be hangers consisting of a laterally stable 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 an polyester-based 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 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 have a minimum lateral stiffness of 1.0 times the rated vertical stiffness.

Springs shall be color coded or otherwise identified to indicate load capacity.

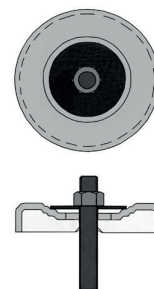
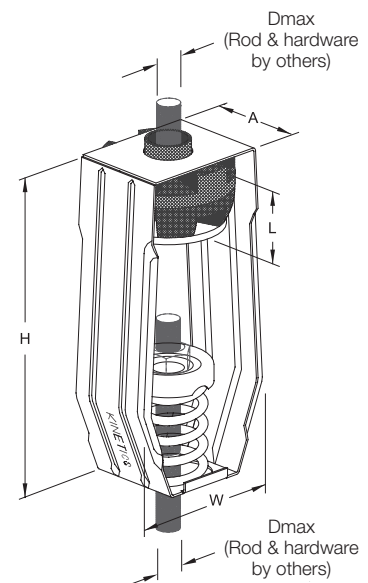
The hanger bracket shall be designed to carry a 500% overload without failure and to allow a support rod misalignment through a 30° arc without metal-to-metal contact or other short circuit.

The hanger bracket shall incorporate spring caps with indexed steps which correspond to the washer diameter of the appropriately sized hanger rod to keep the rod centered in the spring cap and reduce rod misalignment.



Isolation hangers shall be selected by the manufacturer for each specific application to comply with deflection requirements as shown on the Vibration Isolation Schedule or as indicated on the project documents.

The combination isolation hanger assembly with neoprene insert shall be Model SRH, 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 SRH Deflection Isolation Hangers - 25 & 51mm

| Hanger Type | Spring Colour | Spring O.D. (mm) | Load (kg) | Deflection (mm) | L (mm) | H (mm) | W (mm) | A (mm) | Dmax (mm) |
|-------------|---------------|------------------|-----------|-----------------|--------|--------|--------|--------|-----------|
| SRH-1-12 | Silver | 44 | 5 | 26 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-18 | Yellow | 44 | 8 | 27 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-30 | Blue | 44 | 14 | 27 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-35 | Blue | 44 | 16 | 41 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-37 | White | 44 | 17 | 28 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-70 | Green | 44 | 32 | 39 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-75 | Black | 44 | 34 | 30 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-125 | Grey | 44 | 57 | 40 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-150 | Red | 44 | 68 | 33 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-245 | Brown | 44 | 111 | 39 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-300 | Purple | 44 | 136 | 36 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-370 | Orange | 44 | 168 | 33 | 44 | 187 | 94 | 57 | 16 |
| SRH-1-500 | Beige | 44 | 227 | 37 | 48 | 187 | 94 | 57 | 16 |
| SRH-1-600 | Chrome | 44 | 272 | 34 | 48 | 187 | 94 | 57 | 16 |
| SRH-1-700 | Beige/White | 44 | 318 | 36 | 48 | 187 | 94 | 57 | 16 |
| SRH-1-805 | Chrome/White | 44 | 365 | 32 | 48 | 187 | 94 | 57 | 16 |
| SRH-1-50 | Beige | 76 | 23 | 29 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-100 | Chrome | 76 | 45 | 30 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-250 | Blue | 76 | 113 | 54 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-450 | Green | 76 | 204 | 49 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-625 | Black | 76 | 283 | 46 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-800 | Grey | 76 | 363 | 37 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-1000 | Red | 76 | 454 | 37 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-1250 | Brown | 76 | 567 | 35 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-1700 | Orange | 76 | 771 | 34 | 51 | 218 | 142 | 92 | 22 |
| SRH-1-2200 | Orange/Grey | 76 | 998 | 39 | 47 | 241 | 127 | 121 | 22 |
| SRH-1-2465 | Blue | 76 | 1118 | 40 | 47 | 241 | 127 | 121 | 22 |
| SRH-1-2865 | Blue/Grey | 76 | 1300 | 43 | 47 | 241 | 127 | 121 | 22 |
| SRH-1-3500 | Blue/Brown | 76 | 1588 | 46 | 47 | 241 | 127 | 121 | 22 |
| SRH-2-35 | Blue | 44 | 16 | 53 | 44 | 187 | 94 | 57 | 13 |
| SRH-2-70 | Green | 44 | 32 | 56 | 44 | 187 | 94 | 57 | 13 |
| SRH-2-120 | Grey | 44 | 54 | 59 | 44 | 187 | 94 | 57 | 13 |
| SRH-2-220 | Brown | 44 | 100 | 58 | 44 | 187 | 94 | 57 | 13 |
| SRH-2-260 | Blue | 76 | 118 | 56 | 44 | 218 | 142 | 92 | 22 |
| SRH-2-465 | Green | 76 | 211 | 51 | 44 | 218 | 142 | 92 | 22 |
| SRH-2-720 | Black | 76 | 327 | 53 | 44 | 218 | 142 | 92 | 22 |
| SRH-2-850 | White | 76 | 386 | 50 | 44 | 218 | 142 | 92 | 22 |
| SRH-2-1025 | Beige | 76 | 465 | 51 | 44 | 218 | 142 | 92 | 22 |
| SRH-2-1200 | Chrome | 76 | 544 | 51 | 44 | 218 | 142 | 92 | 22 |
| SRH-2-2000 | Orange | 127 | 909 | 53 | 44 | 305 | 152 | 152 | 25 |
| SRH-2-2500 | Blue | 127 | 1136 | 53 | 44 | 305 | 152 | 152 | 25 |
| SRH-2-2750 | Blue/Blue | 127 | 1250 | 54 | 44 | 305 | 152 | 152 | 25 |
| SRH-2-3025 | Blue/Green | 127 | 1375 | 54 | 44 | 305 | 152 | 152 | 25 |
| SRH-2-3250 | Blue/Black | 127 | 1477 | 54 | 44 | 305 | 152 | 152 | 25 |



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Kinetics SRH 102mm Deflection Isolation Hangers

Technical Data Sheet

Kinetics SRH Vibration Isolation hangers consist of free-standing, large diameter, laterally stable steel springs in series with an elastomer-in-shear insert, assembled into a welded hanger bracket. Hangers incorporate a high deflection, colour-coded spring element with load transfer plate and a 10mm deflection elastomeric isolator complete with load transfer plate. 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. 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 104mm to 112mm, and in capacities from 45 to 1748kg. Model SRH hangers are superior to hangers which incorporate a spring only, which will transmit noise through the all-metal construction, and hangers which incorporate noise stop pads only, which will transmit low frequency vibration that a spring can isolate. Kinetics Model SRH combination hangers are recommended for the isolation of vibration produced by suspended mechanical equipment, low speed suspended fans, transformers, ductwork, piping, etc.

APPLICATIONS

Kinetics SRH hangers are used to isolate suspended sources of both audible and inaudible noise and vibration. 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 SRH hangers.

Kinetics' minimum recommendation for the placement of spring hangers is that they be installed on all piping in the equipment room and on the first 15m for piping that extends outside of the equipment room. For typical installations, the three spring hangers closest to the equipment should have equal deflection to the equipment isolators. The remaining spring hangers should have a minimum deflection of 25mm. In noise sensitive areas, the pipe hangers selected should have the same deflection as that specified for the equipment isolation and all piping in the building should be isolated.

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

Model SRH hangers are available in a wide range of load and static deflection selections and can be provided with labour-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, 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 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 elastomer insert shall be molded from oil-resistant compounds and shall be colour coded to indicate load capacity and selected to operate within its published load range.

The spring element shall have a minimum lateral stiffness of 1.0 times the rated vertical stiffness.

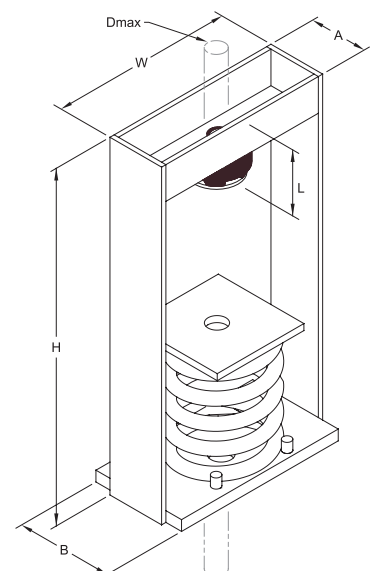
Springs shall be colour coded or otherwise identified to indicate load capacity.

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.



Isolation hangers shall be selected by the manufacturer for each specific application to comply with deflection requirements as shown on the Vibration Isolation Schedule or as indicated on the project documents.

The combination isolation hanger assembly with neoprene insert shall be Model SRH, as manufactured by Kinetics Noise Control, Inc.



Kinetics SRH Deflection Isolation Hangers - 102mm

| Hanger Type | Spring Colour | Load (kg) | Deflection (mm) | L (mm) | H (mm) | W (mm) | A (mm) | B (mm) | Dmax (mm) |
|-------------|---------------|-----------|-----------------|--------|--------|--------|--------|--------|-----------|
| SRH-4-100 | Grey | 45 | 104 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-250 | Blue | 114 | 107 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-500 | Green | 227 | 105 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-750 | Black | 341 | 107 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-1000 | Red | 454 | 109 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-1250 | Brown | 568 | 111 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-1600 | Orange | 726 | 111 | 81 | 406 | 238 | 102 | 152 | 22 |
| SRH-4-2250 | Beige | 1023 | 115 | 89 | 470 | 343 | 152 | 203 | 25 |
| SRH-4-2500 | Beige/Blue | 1135 | 117 | 89 | 470 | 343 | 152 | 203 | 25 |
| SRH-4-2750 | Beige/Green | 1249 | 118 | 89 | 470 | 343 | 152 | 203 | 25 |
| SRH-4-3000 | Beige/Black | 1362 | 105 | 81 | 470 | 343 | 152 | 203 | 25 |
| SRH-4-3250 | Beige/Red | 1476 | 105 | 81 | 470 | 343 | 152 | 203 | 25 |
| SRH-4-3500 | Beige/Brown | 1589 | 105 | 81 | 470 | 343 | 152 | 203 | 25 |
| SRH-4-3850 | Beige/Orange | 1748 | 106 | 81 | 470 | 343 | 152 | 203 | 25 |



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