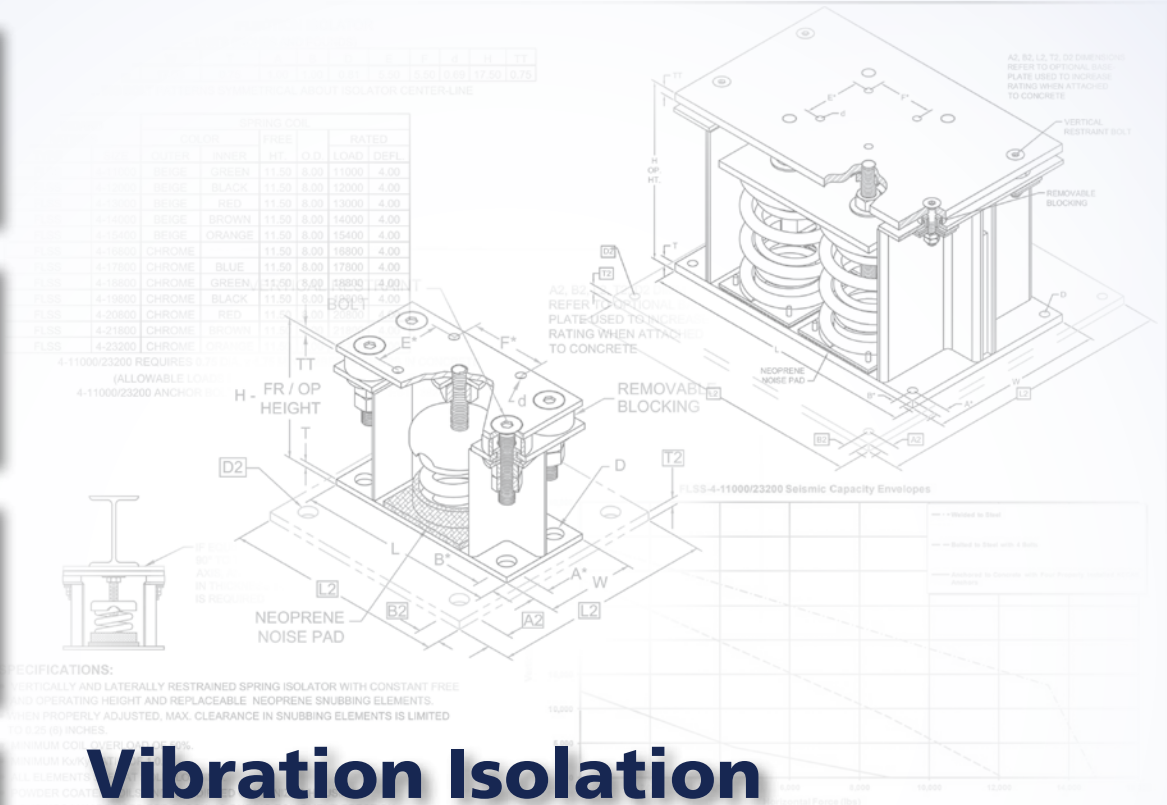
Two Industry Leaders
One Unrivaled Solution!

ISAT KINETICS Noise Control

Experience Matters



Vibration Isolation Product & Service Solutions

Structural Engineering
Mechanical Engineering
Thermal Pipe Stress Analysis
Equipment Anchorage Calculations
Engineered Stamped Project Submittals
3D BIM Design / Coordination
Job-Site Support
Estimating
Consulting

Pipe Riser Guides and Anchors
Spring Isolated Curbs
Anchor Calculations/Submittals
Spring Mounts and Hangers
Flex Connectors
Steel Base Design & Fabrication
Expansion Joints
Isolation Pads
Thrust Restraints
Neoprene Mounts & Hangers
Inertia Bases

Offices Strategically Located Globally To Serve Our Customers

International Seismic Application Technology

www.ISATsb.com

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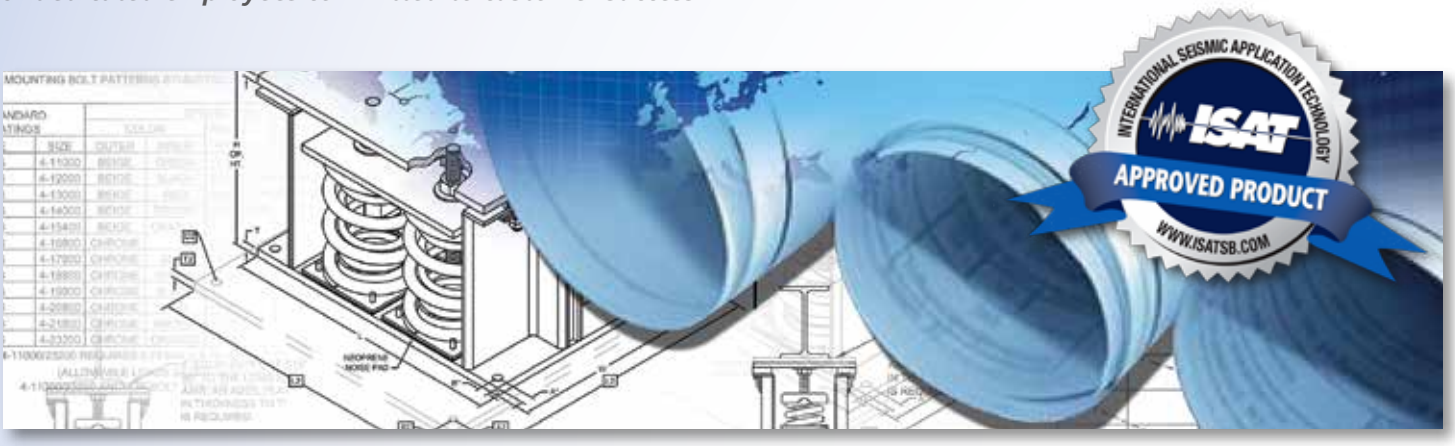
Experience Matters

ISAT and Kinetics Noise Control have combined their specialized strengths to provide clients unrivaled service and experience for seismic and vibration isolation needs. Kinetics Noise Control, a 56 year veteran in vibration and noise control brings its global suite of high quality specialized products and services to the table, supplementing ISAT's comprehensive seismic service and product offering. This partnership includes over 90 years of combined company experience, a world class engineering team, and innovative, reliable product solutions ***all delivered by ISAT's team of dedicated employees committed to customer success.***



ISAT Vibration Isolation experienced professionals can recommend an effective vibration isolation solution for your project As a supplier of vibration isolation (VI) components and engineering, ISAT's team of engineers and technicians are dedicated to providing world class support and services while working with customers to meet industry standards. As commercial construction standards evolve and grow in complexity, many companies rely on ISAT for guaranteed protection of sensitive workspaces from damaging noise and harmful vibrations.

Kinetics Noise Control, celebrating their 55th year in 2013, has extensive experience in the design, manufacturing and application of innovative products to control sound and vibration. Kinetics pioneered development of precompressed, molded fiberglass pad isolators that would be incorporated into a dynamic new floor isolation system. Kinetics Noise Control now produces the industry's largest selection of inspired products to address vibration and noise control, room acoustics, and seismic restraint concerns for almost any application.

Examples of ISAT In-House Design Services Include:

- Structural Engineering
- Mechanical Engineering
- Thermal Pipe Stress Analysis
- Equipment Anchorage Calculations
- Engineered Stamped Project Specific Submittals
- 3D BIM Design / Coordination
- Job-Site Support
- Estimating / Consulting

Offices Strategically Located Globally To Serve Our Customers

Examples of ISAT/Kinetics Combined Market Segments Include:

- Biopharmaceutical
- Healthcare
- Industrial
- Military
- Mission Critical
- Water & Wastewater Facilities
- Corporate & Commercial
- Government
- Institutional
- Infrastructure
- Hospitality & Leisure
- Nuclear
- Data Center
- Mixed Use & Retail
- Religious
- Science & Technology
- Sports
- Aviation

Examples of ISAT/Kinetics Vibration Isolation Solutions Include:

- Pipe Riser Guides and Anchors
- Spring Isolated Curbs
- Anchor Calculations/Submittals
- Spring Mounts and Hangers
- Flex Connectors
- Steel Base Design & Fabrication
- Expansion Joints
- Isolation Pads
- Thrust Restraints
- Neoprene Mounts & Hangers
- Inertia Bases

With over 15,000 completed projects, we own the experience!

Free-Standing Spring Isolators (Model FDS)

Highly effective for control of both high and low frequency vibration produced by fans and pumps located in floors. The model FDS can also be used in conjunction with wind or seismic restraint and installed outdoors. Operating static deflections are available up to 4" (102 mm) and with load capacities to 23,200 lbs. (10,523 kg) to compensate for long span flexible floor structures.

Restrained Spring Isolators (Model FLS)

Vibration isolators for mechanical equipment, when the equipment to be isolated has significant changes of weight during maintenance operations, and for equipment subjected to external forces or high wind loads. Operating static deflections are available up to 4" (102 mm) to compensate for long span flexible floor structures and maintain a high degree of noise and vibration isolation. Some restrained spring isolators are designed to provide seismic restraint as well.

Restrained Spring Isolators (Model FRS)

Isolate vibration produced by equipment subject to weight change or external forces, such as air-cooled condensers, fans, and other rooftop equipment. Support of vertical pipe risers, where upright motion must be limited, yet the riser isolated from the building. Operating static deflections are available up to 2.00" (51 mm), in capacities of up to 3500 lbs. (1588 kg).

Fiberglass and Neoprene Isolators

Fiberglass Isolation Pads (Model KIP)

KIP pads are applied in a wide range of noise, shock, and vibration isolation uses. Recommended whenever a consistent natural frequency under a range of loads and permanent load support characteristics are important. A range of densities and spring rates are available to provide load-bearing capacities from 1 to 500 PSI (0.07 to 35 kg per sq. cm). Uniquely allows a wide range of loading on a given isolator while maintaining a constant natural frequency.

Fiberglass Isolation Mounts (Model AC)

Isolate audible frequency vibration or noise produced by small utility vent fans, vain axial fans, high speed motors and roof mounted exhaust fans with lowest operating speeds of 1750 RPM when mounted on a grade supported slab or pier with a bolt-down and vertical lift control feature. The fiber glass pad offers a constant natural frequency over a wide load range.

Neoprene Isolation Mounts (Model RQ and RD)

Isolate noise and high frequency vibration generated by mechanical equipment located on a grade-supported structural slab, pier or load-bearing wall. Equipment types include close coupled pumps with motors of 5 H.P. or less, small vent sets, low pressure packaged air handling units and wall-mounted electrical transformers. Model RQ mounts are also selected for use in seismic and wind load restraint applications.

(Continued on pg. 4)

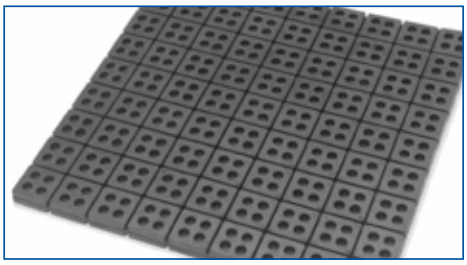
Fiberglass and Neoprene Isolators *(continued)*

Neoprene Isolation Pads (Model NP, and NG)

Ribbed neoprene isolation pads used to isolate noise, shock, and high frequency vibration, generated by mechanical equipment and industrial machinery located on a grade-supported structural slab. Applications limited to pad loadings of 60 PSI (4.2 kg/cm2) for 45 durometer material, and 120 PSI (8.4 kg/cm2) for 65 durometer material, and used with equipment having minimum operating speeds of 3600 RPM.

Neoprene Isolation Pads (Model RSP)

Kinetics Model RSP elastomer in-shear isolation pads are suitable for the isolation of noise, shock, and high frequency vibration produced by mechanical, industrial, or process equipment located on grade, structural slab, or in other noncritical areas.



Isolation Hangers, Flex Connectors and Thrust Restraints

Isolation Hangers (Models SFH, SRH, SH, FH and RH)

Designed to reduce the transmission of vibration and noise from suspended mechanical equipment such as fans, pumps, air handling units, piping and ductwork. Hanger inserts are designed for up to 50% overload capacity and for rod misalignment over a 30-degree arc. Brackets will carry 500% overload without failure. Available to 4" deflection and in capacities to 3,850 lbs. Spring hangers feature Kinetics patented No-Short spring cap which contains indexed steps to correspond to standard washer diameters for the appropriate rod diameter.

Flexible Connectors (KINFLEX)

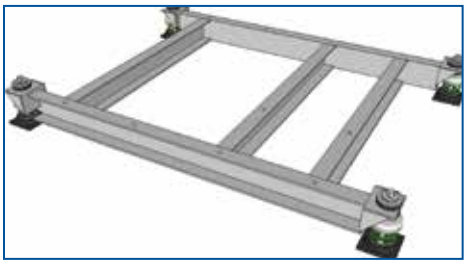
Prevent stresses due to expansion and contraction and compensate for misalignment. Absorb the continuing movement experienced in piping systems because of varying ambient temperatures, differences in temperature of materials being handled, and differences in composition. Reduce objectionable noise and vibration in piping systems, compressors, and other pulsating equipment.

Thrust Restraint (Model HSR)

Counteracts the discharge force created by fans during operation. Always used in pairs, and best utilized when located on the centerline of the discharge outlet of the fan, bridging the flexible duct connector. Uses 1" and 2" deflection springs in 35 to 3,500 lbs capacities.

Inertia Base Frames (Model CIB)

Specifically designed and engineered to receive field poured concrete, inertia bases are used to provide a rigid mounting platform to support mechanical equipment on vibration isolators. The added mass of the concrete reduces differential movement between driving and driven members, reduces rocking by lowering equipment center of gravity, reduces motion of equipment during start-up and shut-down, acts to reduce reaction movement due to operating loads on equipment, and as a noise barrier.



Structural Frame Bases (Model SFB)

Used to support mechanical equipment and provide rigid platforms for attachment of vibration isolators, without allowing excessive differential movement between driving and driven members. Typical uses include support and isolation of reciprocating chillers, close coupled pumps, vent sets, packaged air handling units, centrifugal fans, evaporative condensers, and similar types of equipment.

Structural Beam Bases (Model SBB)

Used to support mechanical equipment and provide a means of attaching supporting isolators while maintaining a rigid supporting surface for the isolated equipment. Typical uses include support and isolation of absorption chillers, hermetic centrifugal chillers, package boilers, cooling towers, and similar types of equipment

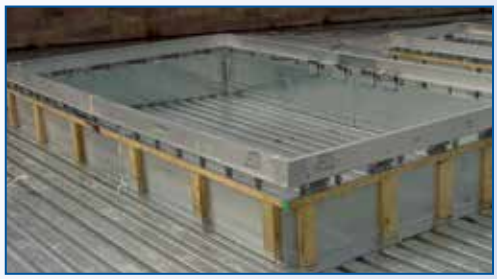
Rooftop Isolation Rails and Curbs

Roof Curb Rail (Model KSR)

Kinetics KSR Isolation Rails are the next generation isolation system designed and engineered to isolate packaged rooftop equipment from the roof structure while providing seismic and wind restraint. Designed for easy installation, minimum interference with equipment overhang, the Kinetics KSR goes well beyond internal isolation by reducing casing radiated vibration caused by turbulent air flow as well as compressor and fan vibration.

Roof Curb Isolation System (Model KSCR)

Affordable, easy-to-install, all-in-one roof curb AND vibration isolation packaged rooftop units! KSCRs are limited to units up to 20′ in length and weighing up to 12,000 lbs. 1″ or 2″ deflection, powder-coated steel springs with 50% overload capacity are available. Standard features include internal seismic and wind restraint,supply and return support hardware and EPDM air and weather tight seal.



Non-Isolated Roof Curb

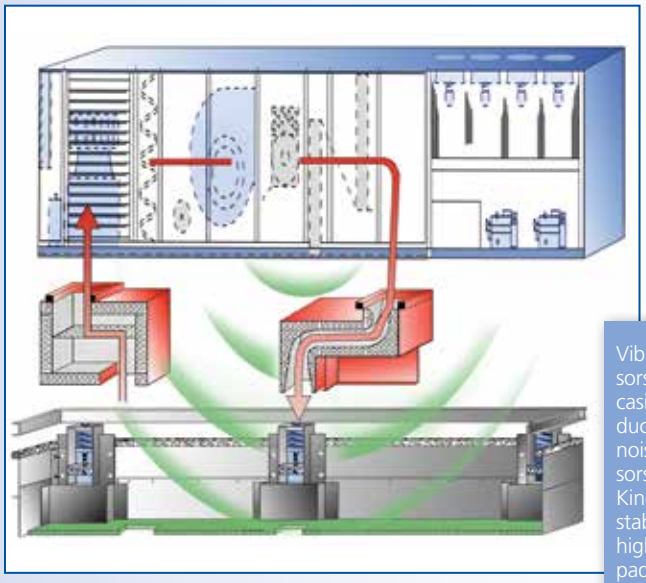
Complete curb system with internal seismic and wind restraints for rooftop equipment. Curb can be made to accommodate a variety of height and slopes. Optional accessories include, insulation, duct supports and noise packages.

Rooftop Isolation Rails and Curbs *(Continued)*

Vibration Isolation Curb (Model ESR)

Heavy-duty, complete vibration isolation curb for the BIG rooftop unit jobs! Code compliant seismic & wind restraint, access ports for each isolator to inspect, level, or change springs after equipment placement. Up to 4" deflection, powder-coated steel springs with 50% overload capacity. High-frequency noise isolation pads.

Sound and Vibration Isolation Curb



Sound and Vibration Isolation Curb (Model ESSR)

The Kinetics ESSR is the only isolated curb system that addresses all four noise sources associated with packaged rooftop equipment. The ESSR incorporates all the features of our ESR vibration isolation curb with our aerodynamic acoustical silencers; return air plenums and NOISEBLOCK™ STL panels. This gives you a noise control system that addresses all the noise and vibration concerns of your packaged rooftop equipment: vibration from the rotating equipment and casing radiation, duct-borne noise from supply and return fans, and breakout noise from the fans and compressors into the space below.

Vibration from fans and compressors (source 1) and vibration from casing radiated noise caused by duct turbulence and the airborne noise of the fans and compressors (source 2) are controlled with Kinetics high deflection, laterally stable coil spring isolators and high frequency neoprene noise pads.

Duct-borne noise from the supply and return air fans (source 3) are controlled using an aerodynamic acoustical silencer on the supply fan and an acoustical plenum on the return air side - both with minimal pressure drop.

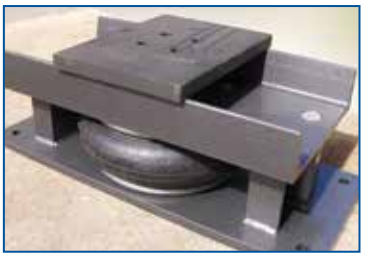
Breakout noise through the bottom of the rooftop unit (source 4) is controlled by the NOISEBLOCK™ STL acoustical panel located in the floor of the ESSR.

Air Mounts

Air Vibration Isolation Mounts (Model KAM and CAM)

Kinetics air mounts are pneumatic, elastomeric vibration mounts. The CAM is available in four (4) sizes supporting loads up to 7,500 lbs. The KAM is available in seven (7) sizes with capacities from 500 to 22,000 lbs. per mount.

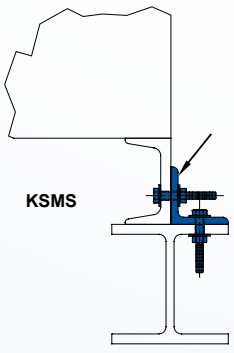
Both models are optionally available with automatic leveling controls and custom mounting to meet your specific needs. Typical applications include mechanical equipment and industrial process equipment requiring low natural frequency isolation, as well as protecting sensitive equipment from disturbing floor-borne vibration.



Seismic Restraint Mounting Brackets

Seismic Restraint Mounting Brackets (Model KSMS)

Model KSMS seismic and wind restraint brackets are used to solid-mount equipment to the building structure. It can be bolted or welded to the equipment, and is attached to the structure by anchoring to concrete or bolting to steel.



Modular/Restraint Isolator (Model FMS) - U.S. Patent No. 7,028,969

Because of the extreme design flexibility of the modular concept, Kinetics Model FMS Isolators can be used effectively for large, heavy pieces of equipment in highly active seismic or wind prone areas as well as for more common applications in less active areas without financial consequence. Ideal for equipment mounted on structural frame or concrete inertia bases. Because of the minimal vertical travel and near constant operating height, the FMS isolator is excellent for use on cooling towers, chillers, boilers or other equipment where the potential for wide weight variations during service is anticipated. Up to 4" deflection, powder-coated steel springs with 50% overload capacity.

Restrained Spring Isolators (Model FLSS)

Vertically restrained spring isolators designed for higher seismic and wind forces. The housings are fabricated to limit vertical movement of the isolated equipment if equipment loads are reduced or if the equipment is subjected to large external forces such as high winds or seismic events. The housings also provide a constant free and operating height to facilitate installation. Up to 4" deflection, powder-coated steel springs with 50% overload capacity.

Restrained Spring Isolators (Model FHS)

Vibration isolation with seismic and wind restraint capabilities for mechanical equipment. Featuring all-directional restraint with vertical limit stops, field-interchangeable spring coils, galvanized housing and polyester powder coated coils and a constant free height and operating height. Up to 4" deflection, powder-coated steel springs with 50% overload capacity.

Seismic Snubbers (Model HS Series)

Seismic snubbers are designed for use in locations subject to earthquakes or other external forces which could displace vibration isolated equipment. Rugged, heavy-duty products which have been designed to resist imposed forces from external sources yet remain out of contact during normal operation so that vibration will not be transmitted to the building.

Vertical Pipe Riser Isolation Guides and Anchors

Spring Riser Guide (Model KRG)

Model KRG riser guide and isolator provides flexible support for a pipe riser by allowing it to expand and contract vertically while limiting its movement horizontally. The KRG is available with or without spring isolation. The deflection offered is 1", 2" and 4". The capacity range is from 35 lbs. to 23,000lbs.

Pipe Anchor (Model KPA)

Model KPA pipe anchors are used to secure the position of a vertical or horizontal riser. The anchors are selected based on the amount of force the pipe will transfer into the structure a specific point of attachment. Anchor capacities range from 500 lbs. to 40,000 lbs. and must be used in pairs.

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COMBINED there is NONE BETTER for Engineering services, manufacturing and testing capabilities - all backed by the industry's most experienced staff.

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