Kinetics Noise Control

Industrial Products Group

A World Class Leader in Industrial Noise and Vibration Control Products and Solutions

www.kineticsnoise.com/industrial/

Over 50 years
of success solving noise & vibration control problems

- Largest Selection of Standard Products
- Custom Engineered Products and Systems
- Engineering & Applications Assistance
- Quality Assurance
- On-Time Delivery
- Competitive Pricing

You'll find the largest selection of standard and custom designed, industrial noise and vibration control products in the world at Kinetics Noise Control, Inc.

Need something off-the-shelf? Kinetics maintains a large inventory of high quality standard products for fast deliveries. How about a custom-engineered system? Kinetics' engineers have designed application-specific products and systems for industrial plants and processes since 1958.

Our engineering and design experience guarantees you'll get the right product for your project, delivered on time and competitively priced. Every product we manufacture is tested and inspected to meet all applicable industry standards for quality, durability and safety.

You'll find Kinetics' personnel are helpful, friendly and keenly interested in finding the exact solution to your noise control problem. Call us. We think you'll find doing business with us is a rewarding experience.

Solving Noise Problems Using Kinetics Noise Control Products and Systems

Noise is generally defined as unwanted sound. A typical noise control problem includes three basic components: the noise source (machines, fans, pumps, processes etc.); the receiver (persons subjected to the noise); and the path (the route the noise travels between the source and the receiver indoors or outdoors).

Noise exists in two forms: airborne and structure-borne. Airborne noise travels from a source to a receiver as a differential in atmospheric pressure and can travel in all directions. Structure-borne noise is unwanted vibration, which is transmitted from a vibrating source to a receiver through a solid material and regenerated as airborne noise.

Once the source, path and receiver have been identified, four tools are used to control the unwanted noise. These tools are: absorption, barriers (blocking), damping and vibration isolation. The representative Kinetics independently tested products used to control these noise types are presented in this brochure.

Kinetics Model S4 Panel Absorber mounted in the overhead trusses control unwanted reverberant noise to acceptable levels.

For additional information contact your local Kinetics Noise Control representative or go to www.kineticsnosie.com/industrial

ABSORBERS

Absorbers convert airborne acoustical energy into heat when sound waves strike the surface of a porous material and pass inside. They offer reverberant noise control.

Kinetics manufactures absorbers that include high-quality wall and ceiling mounted panels, baffles, curtains and blankets fabricated from faced and non-faced fiberglass. Various thicknesses are available to provide specific performance characteristics.

Model KNP Panel Absorber

Model KNP absorbers are 2" or 4" (51 or 102 mm) thick, heavy duty, perforated aluminum, galvanized steel, or stainless steel panels. These panels can be attached to walls, ceilings, or structures around plant equipment. They can be faced on both sides and used as hanging baffles, allowing absorption from both sides and are available in various lengths and widths. Powder-coated finish available.

Model KB-803
Sound Control Baffle

Available in FDA and USDA approved construction for food processing industry. Standard fiberglass absorbers are faced with a heat sealed white or black fire retardant vinyl and equipped with two grommets for hanging.
Sizes: 2' x 4' x 1-1/2"
(0.6 m x 1.2 m x 38 mm)
Custom sizes available.

Model PA
Fiberglass Absorbers

Molded fiberglass boards. Non-faced PA 410 GO absorbers provide superior broadband absorption. Faced PA 410 GB absorbers excel in low and mid range frequencies. Meets Class 1 requirements.
Sizes: 4' x 8' x 1" (1.2 m x 2.4 m x 25 mm).
Temperature: -40°F to 450°F (-40°C to 232°C).

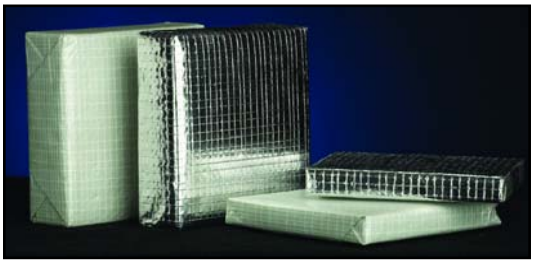
Model PA Absorbers

Model KFA
Quilted Face Fiberglass Absorber

High quality, fire resistant, fiberglass acoustical blankets provide superior durability and mechanical strength in hot, dirty and corrosive industrial environments. Easily installed and cleaned. Sizes: 4' x 25' (1.2 m x 7.6 m) rolls and 2'x 4' (0.6 m x 1.2 m) baffles. Thickness of 1" to 4" (25 mm to 102 mm).

Model S-4
Sound Absorber Panel

Heavy-duty wall and ceiling mounted panels used in controlling low and mid-frequency reverberant sound. Excellent mechanical strength and durability, resists casual damage, heat, moisture and corrosive chemicals. May be steam cleaned. Available in white or foil facings.
Temperature: -40°F to 450°F
(-40°C to 232°C).
Thickness: 1", 2" and 4"
(25 mm, 51 mm, 102 mm).



VIBRATION ISOLATION

Vibration isolation reduces structure-borne noise transmission by inserting resilient material between the vibrating source and the supporting structure. Heavy machine tools, process equipment, large ventilation equipment generators, pumps, and delicate lab instruments require isolators for noise, shock and vibration control.

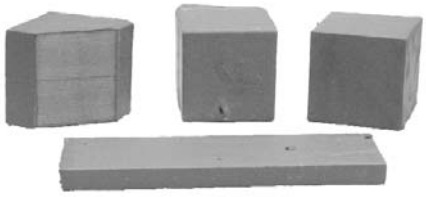
Kinetics manufactures a complete line of isolation products and systems for industrial applications. This includes a wide selection of neoprene, fiberglass, springs, air mounts and machine mounts.

Model RD and RQ Isolation Mounts

One-piece, molded neoprene, with non-skid, ribbed top and bottom surfaces. Mounts include a tapped steel load plate, pre-drilled base plate and options for leveling blot. **Capacities**: 55 to 4,000 pounds (25 to 1814 kg).

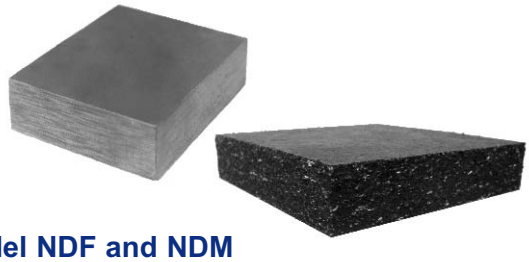
Model NP & NG Machinery Pads

High quality, neoprene pads available in 18" x 18" (457 mm x 457 mm) sheets in thickness from 0.22 -8.87 inches (6 - 225 mm) for field sizing and cutting, 45 and 65 Duro.



Model KIP Isolation Pads

KIP Pads are pre-compressed, inorganic, inert fiberglass individually coated with a flexible elastomeric moisture barrier. They are available in capacities from 20 to 16,000 lbs. per pad, in thickness of 1, 2, 3, and 4." Recommend for use in the reduction of vibration produced by pumps, chillers, cooling towers, etc. They are effective in reducing shock transmission from punch presses and other impact-producing machinery.



Model NDF and NDM Isolation Pads

Kinetics Model NDF and NDM isolation pads are recommended for noise, shock and vibration applications. The NDF, a blend of laminated neoprene pads are capable of being statically loaded up to 10,000 psi (703 kg/cm2) and dynamically loaded up to 2000 psi (141 kg/cm2). The NDM pads, a blend of ozone-resistant rubber elastomer, are capable of being statically loaded up to 2000 psi (141 kg/cm2) and dynamically loaded up to 1000 psi (70 kg/cm2). Typically used with high load equipment.

Model AC Fiberglass Isolators

Complete with load plate and mounting brackets are designed for bolt-down applications such as vent fans, vane axial fans, high-speed motors, and similar equipment. AC fiberglass isolators are available in sizes with capacities from 40 to 900 lbs. and deflections of 0.18" to 0.70".

Model CIB, SFB Equipment Bases

Custom designed, welded structural steel bases designed to provide rigid support and correct inertia mass providing stability and vibration isolation.

Model FHS Seismic Control Restrained Spring Isolators

Meet vibration isolation specifications of Kinetics Model FDS isolators and include a steel housing assembly to limit both lateral and vertical movement of the supported equipment during an earthquake without degrading the vibration isolation of the spring during normal equipment operating conditions.

KINFLEX Connectors

Prevent stresses due to expansion and contraction, isolate against the transfer of noise and vibration, and compensate for misalignment. They absorb movement created in piping systems by differences in ambient temperatures, temperature of materials handled, and composition. They minimize the risk of buckling or pulling apart.

Model KAM and CAM Air Isolators

Custom Engineered Pneumatic, elastomeric vibration mounts. CAM isolators support loads up to 7,500 lbs. KAM isolators can support loads from 500 to 22,000 lbs. Available with automatic leveling controls and custom mounting. Applications include mechanical equipment and industrial process equipment requiring low natural frequency isolation, and protecting sensitive equipment from floor-borne vibration.

Model FDS Spring Isolators

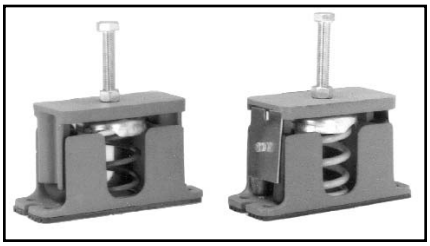
Free-standing, unhoused, large diameter, laterally stable steel springs contained in an upper load plate/leveling assembly and lower load plate/noise pad assembly, for control of high frequency vibration. They are available as an all-welded unit for bolt-down applications. FDS spring isolators are designed for spring deflection ranges from 0.71" to 4.00" with load capacity up to 23,200 lbs. FDS spring isolators are recommended for the isolation of floor-mounted refrigeration compressors, pumps, air-conditioning equipment, centrifugal and axial fans, and internal combustion engines.

Model FLS Restrained Spring Isolators

Large diameter, laterally stable steel springs assembled into a welded steel housing designed to limit vertical movement of the isolated equipment if equipment weights are reduced or if the equipment is subjected to large external forces. The spring elements are complete with high frequency vibration control noise pads and an adjustable top load plate with leveling bolts. They are available with deflections 0.71" to 4.00" for loads up to 23,200 lbs. The FLS isolators are recommended for the isolation and restraint of large fluid-carrying equipment such as boilers, chillers, and cooling towers, or for equipment subjected to high wind loads.

Model SL and SM Spring Isolators

High deflection stable springs assembled into telescoping aluminum or cast iron housings, complete with 1/4" noise



pads bonded to the lower load surface. Adjusting and leveling bolts are part of the top housings. Kinetics Model SM spring isolators are designed with an adjustable snubbing feature to reduce movement during start-up and shutdown. Model SM isolators are available with deflections to 1.84" in capacities from 250 to 3,000 lbs. Model SL isolators are available with the same deflection ranges and capacities from 35 to 3,500 lbs. Kinetics Model SL and SM spring isolators are typically used to isolate mechanical equipment subject to frequent start-up and shutdown such as compressors and engine generators.

COMPOSITES

Composites are limp mass barriers supported by a decoupling layer of fiberglass or foam. They provide a sound transmission loss value that exceeds that of other materials of the same weight. An additional outside layer of absorptive fiberglass or foam can be applied to enhance acoustical performance.

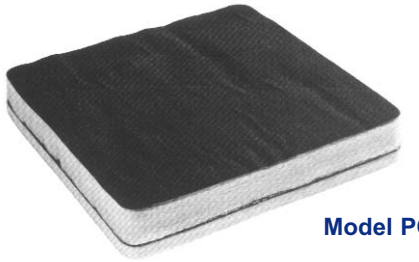
Model KBC
Barrier Composites

Kinetics KBC barrier composites are thin, rugged, high performing, flexible acoustical composites designed to solve difficult noise control applications where sound absorption must be increased and sound transmission must be reduced. Kinetics Model KBC barrier composites are available with 1/2 PSF, 1 PSF or 2 PSF (2.5, 4.9 or 9.8 kg/m2) mass-loaded vinyl barriers with a 1” or 2”, quilted aluminum cloth faced fiberglass absorber on one or both sides of the barrier. Various roll sizes available.

Model PC
Fiberglass Composites

Heavy-duty, single and double layer molded fiberglass and mass layer composites provide maximum noise absorption inside hot engine compartments and equipment enclosures. Single layer includes faced or non-faced 1" (25 mm) thick fiberglass absorber and a 0.5 PSF (2.5 kg/m2) mass layer. Double layer composites include an extra 1" (25 mm) fiberglass-decoupling layer after the mass layer. Easy installation with stickpins or formed channels.

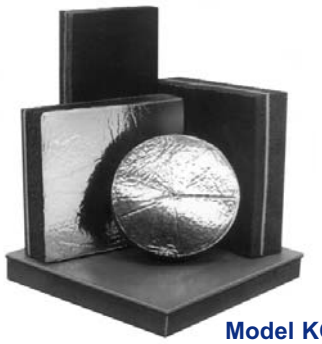
Sheet size: 32" x 48" (0.8 m x 1.2 m).



Model PC Composites

Model KNC
Noise Control Curtain Systems

Rugged, durable and aesthetically pleasing, Model KNC noise control curtain systems offer a low-cost alternative to permanent noise control enclosures for industrial equipment. Features include excellent noise control characteristics and superior resistance to heat, chemicals and oils. Easily attached to floor, wall and ceiling mounted track systems. The curtain panels feature Velcro self-adhering nylon closures and heavy duty grommets. STC rating up to 33.



Model KC Composites

Model KC Composites

Single and double layer, 0.5 and 1 PSF (4.9 and 2.5 kg/m2) limp mass vinyl barriers laminated to Kinetics urethane absorption foam. Double layer composites add an extra foam layer as a decoupler after the vinyl barrier. Foams can be faced to resist oil, dirt and moisture. An optional pressure-sensitive adhesive layer facilitates installation in equipment enclosures and machine housings where temperature and environmental conditions permit.

Sizes: 54" x 25' (1.4 m x 7.6 m) rolls.

BARRIERS

Barriers reduce airborne noise transmission. Barrier effectiveness is dependent on barrier mass, properties associated with stiffness, and the environment or structural surroundings.

High-quality Kinetics barriers are fabricated from transparent or opaque limp, mass-loaded vinyl. When placed between the source and the receiver they offer high transmission loss. Mass ranges: 0.5 to 2 PSF, (2.5 to 9.8 kg/cm2).

Model KNM
Barrier Material

Kinetics Model KNM mass-loaded vinyl barrier materials are available in reinforced or unreinforced construction. They are used for enclosing noise sources by draping around equipment, suspending between equipment and quiet areas, or lagging to the equipment casings. KNM barrier materials can be used effectively to lag piping systems, reducing valves, etc., and are highly effective as crosstalk barriers and septums. KNM materials are available in 1/2 psf to 1 psf (2.5 to 4.9 kg/m2), in 54" wide x 20-yard (1372 mm x 18.2 m) rolls, with acoustical ratings of STC-21 to STC-27.

DAMPING

Model KNM-100AL & ALQ
Pipe and Duct Lag

1 PSF (4.9 kg/m2) barrier with a reinforced aluminized facing. Meets Class 1 requirements for flame spread and smoke development per ASTM-E84 with aluminized facing exposed. STC rating: 27. As KNM-100 ALQ it is available with a scrim faced quilted fiberglass decoupler for direct lagging to process piping and ductwork, STC rating: 28

Damping reduces structure-borne noise generated by a vibrating surface by adding mass to the surface. Airborne noise re-generated by the vibrating surface is also reduced.

Kinetics damping products are available in adhesive-backed sheets or in compound form that may be sprayed or troweled directly onto the vibrating surface.

Model KDD-3553
Sound Deadener/Damping Sheets

Kinetics sound deadeners dampen and eliminate noise caused by vibrating metal surfaces. Typical applications include sheet metal ducts, chutes, bins and hoppers, and machine, motor and transformer housings. Model KDD-3553 is a filled asphalt mastic acoustical sheet material that is fire resistant. One side is coated with pressure-sensitive adhesive, making it easy to install. The adhesive withstands temperatures to 400°F (204°C).
Sizes: 35" x 53" (0.9 m x 1.3 m).
Thickness: 0.6" (15 mm).
0.5 PSF (2.5 kg/m2).

Type KDC-E-162
Damping Compound

Non-hazardous, cost-effective solution for reducing "ringing" in sheet metal ducts, chutes, bins and metal partitions. Type KDC is an emulsion that is easily sprayed or troweled onto metal, glass, wood and plastic. It is fire retardant and resistant to harsh corrosives. Shipped ready to use. Sizes: 5 gal. containers to 50 gal. (18.91 l) drum.

Kinetics Noise Control has been engineering and manufacturing vibration isolation and noise control products and systems for 50 years. We pioneered the use of pre-compressed molded fiberglass for vibration isolation. Throughout the years, we have developed and refined a complete line of airborne noise and vibration control products. In addition to the vibration isolation noise control products illustrated in the brochure, we also offer complete designed pipe riser isolation systems, computer-assisted seismic design, engineered floating floor systems for control of airborne and impact noise, and a complete selection of barriers, absorbers and damping materials. Kinetics offers the engineering expertise, laboratory, and field-testing capabilities to work with you and your acoustical consultant to develop a solution to your specific industrial noise control problem.

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Noise Control

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