SOLUTIONS FOR INDUSTRIAL FACILITIES
Noise Control and Vibration Isolation

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 & 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 travels 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 Kinetics products used to control these noise types are presented in this brochure. All products are independently tested per applicable ASTM standards.

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

**Quilted Face Fiberglass Absorber**

*Model KFA*

High quality, fire resistant, fiberglass acoustical blankets provide superior durability and mechanical strength in hot, dirty and corrosive industrial environments. Easily installed and cleaned. Meets Class 1.

- **Roll sizes:** 4’ x 25’ (1.2 m x 7.6 m)
- **Baffle sizes:** 2’ x 4’ (0.6 m x 1.2 m)
- **Thickness:** 1” to 4” (25 mm to 102 mm)

**Sound Control Baffle | Model KB-803**

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. Meets Class 1.

- **Standard Sizes:** 2’ x 4’ x 1-1/2” (0.6 m x 1.2 m x 38 mm)
- Custom sizes available

**Panel Absorber**

*Model KNP*

Kinetics 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 indoor or outdoor 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.

**Fiberglass Absorbers**

*Model PA*

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.

- **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)

**Sound Absorber Panel**

*Model S-4*

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. Meets Class 1.

- **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.

Isolation Mounts | Models RD and RQ
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 bolt.

Capacities: 55 to 4,000 pounds (25 to 1814 kg)

Machinery Pads | Models NP & NG
High quality, neoprene pads available in 18" x 18" (457 x 457 mm) sheets in thickness from 0.22" to 8.87" (6 to 225 mm) for field sizing and cutting, 45 and 65 Duro.

Equipment Bases | Models CIB and SFB
Custom designed, welded structural steel bases designed to provide rigid support and correct inertia mass providing stability and vibration isolation.

Fiberglass Isolation Pads | Model KIP
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. (9 to 7,275 kg) per pad, in thickness of 1-, 2-, 3-, and 4-inch (25-, 51-, 76-, and 102-mm). 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.

Isolation Pads Models NDF and NDM
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.

Fiberglass Isolators | Model AC
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. (18 to 409 kg) and deflections of 0.18" to 0.70" (5 to 18 mm).
**Restrained Spring Isolators | Model FLS**
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" (18 to 102 mm) for loads up to 23,200 lbs (10,523 kg). 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.

**Spring Isolators | Model FDS**
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" (18 to 102 mm) with load capacity up to 23,200 lbs (10,523 kg). FDS spring isolators are recommended for the isolation of floor-mounted refrigeration compressors, pumps, airconditioning equipment, centrifugal and axial fans, and internal combustion engines.

**Housed Spring Isolators | Model SL and SM**
High deflection stable springs assembled into telescoping aluminum or cast iron housings, complete with 1/4" (6 mm) 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" (47 mm) in capacities from 250 to 3,000 lbs (113 to 1588 kg). Model SL isolators are available with the same deflection ranges and capacities from 35 to 3,500 lbs (16 to 1588 kg). 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.

**Seismic Control Restrained Spring Isolators | Model FHS**
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 Flexible 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.

**Air Isolation Mounts Models KAM & CAM**
Custom Engineered Pneumatic, elastomeric vibration mounts. CAM isolators support loads up to 7,500 lbs (3401 kg). KAM isolators can support loads from 500 to 22,000 lbs (226 to 9979 kg). 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.
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.

Barrier Composites | Model KBC

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" (25 to 51 mm), quilted aluminum cloth faced fiberglass absorber on one or both sides of the barrier. Various roll sizes available.

Fiberglass Composites | Model PC

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.

噪声控制幕系统

噪声控制幕系统 Model KNC

坚固耐用且美观，Model KNC 噪声控制幕系统为工业设备提供一种低成本的替代方案，用于永久噪声控制隔声装置。特性包括出色的噪声控制特性以及对热、化学物质和油的优越抵抗性。易于安装到地板、墙壁和天花板安装的轨道系统。幕帘采用 Velcro 自粘尼龙扣片和重型挂钩。STC 等级可达 33。

泡沫复合材料 | Model KC

单层和双层，0.5 和 1 PSF (4.9 和 2.5 kg/m²) 脆弱的复合材料乙烯基泡沫层。双层复合材料在乙烯基隔板之后添加额外的泡沫层作为变阻器。泡沫可以面临防止油、尘土和水分。可选的压力敏感型黏附层有助于在允许的温度和环境条件下安装在设备隔声装置和机器机壳中。
Outdoor Fiberglass Absorbers/Barrier Composites | Model KNC-ENV

Kinetics introduces UV resistant acoustical attenuating blankets used to reduce reverberant (reflected) airborne noise outdoors as well as block transmitted airborne noise. Models KFA-ENV fiberglass absorbers and KBC-ENV fiberglass/barrier composites are flame resistant, tear and rot resistant, and possess high tensile strength. They withstand a wide temperature range, are cleanable, and unaffected by moisture, humidity, dust, dirt, oils and most chemicals. Common applications include chillers, compressors, air handling equipment, pumps, general construction site noise, retrofit applications, oil and gas drilling, and midstream compression sites.

DAMPING

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.

Damping Compound | Model KDC-E-162

Non-hazardous, costeffective solution for reducing “ringing” in sheet metal ducts, chutes, bins and metal partitions. Kinetics 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.

Drum sizes: 5 gal. (19 L) containers to 50 gal. (189 L)

Sound Deadener/Damping Sheets

Model KDD-3642

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-3642 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: 36” x 42” (0.9 m x 1.1 m)
Thickness: 0.6” (15 mm)
0.5 PSF (2.5 kg/m²)
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).

A 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. 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

Barrier Material | Model KNM

Kinetics 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.