Acoustical Tests

STC 54  IC 24

6'' Concrete Slab
Kinetics® RIM I-2-16
2 Layers 5/8'' Drywall
3/4'' Plywood

STC 73  IC 70

6'' Concrete Slab
Kinetics® RIM I-2-16
2 Layers 3/4'' Plywood
3/8'' Plywood
3'' Subfloor
1'' Oak Hardwood Floor
3/4'' Sleepers
3'' Subfloor
1'' Oak Hardwood Floor

STC 68  IC 60

6'' Concrete Slab
Kinetics® RIM Q-2-16 Isolation System
1/2'' Plywood
4'' Concrete Slab

STC 72  IC 62

1/2'' Phenolic Foam 2'' Subfloor

STC 59  FIC 45

1/2'' Phenolic Foam 2'' Subfloor
2 Layers 1/2'' Polyisocyanurate Isolation Pad

STC 66  IC 63

1/2'' Phenolic Foam 2'' Subfloor
2 Layers 1/2'' Polyisocyanurate Isolation Pad

STC 71  IC 64

1/2'' Phenolic Foam 2'' Subfloor
2 Layers 1/2'' Polyisocyanurate Isolation Pad

STC 73  IC 70

1/2'' Phenolic Foam 2'' Subfloor

Kinetik Test Number A11

Kinetik Test Number A10 and A11

Kinetik Test Number A16

Kinetik Test Number A16

Kinetik Test Number A10

Kinetik Test Number A8

Kinetik Test Number A9

STC 75  IC 75

6'' Concrete Slab
Kinetics® RIM Q-2-12
5/8'' Plywood

STC 70  IC 70

6'' Concrete Slab
Kinetics® RIM Q-2-12
5/8'' Plywood

STC 68  IC 60

6'' Concrete Slab
Kinetics® RIM I-2-12
4'' Concrete Slab

STC 67  IC 67

1/2'' Phenolic Foam 2'' Subfloor

Kinetik Test Number A11

Kinetik Test Number A10

Kinetik Test Number A10

Kinetik Test Number A10

Kinetik Test Number A8

Kinetik Test Number A9

Kinetik Test Number A7

Kinetik Test Number A6

Floor Isolation Theory:
Floor isolation systems are incorporated into building design to minimize impact noise and airborne sound transmissions. A “floated” floor (or rooftop) is supported by resilient mounts installed on the structural floor or rooftop. The design of an effective isolation system is dependent on several factors including:

1.) Stiffness and mass of the structural floor,
2.) Isolation mount natural frequency and damping characteristics,
3.) Airspace height and venting,
4.) Mass and composition of the floated floor,
5.) Sound absorption in the airspace,
6.) Control of sound flanking paths.

Creating an airspace between the structural and isolated floors while decoupling the two floors with the appropriate resilient mount effectively controls noise transmission. Maximum effectiveness of floating floor composite construction is achieved when the finished floor is fully isolated from the building structure and non-structural components, such as ductwork and piping. Accordingly, airborne and impact noise transmissions are greatly reduced between the room incorporating the floating floor system and other parts of the building. Additionally, floating floor systems are often used to prevent transmission of vibration and airborne noise from entering into the space in which the floating floor is installed. One such application would be the construction of floating floors for a multiplex theater adjacent to a railway. Kinetics Noise Control floating floor systems offers the largest variety of isolation mounts to fit any specific applications. These include resilient pre-compressed fiberglass pads, steel springs, and resonant or natural rubber pads. Acoustical test data for Sound Transmission Class (STC) and Impact Insulation Class (IIC) are available for several types of isolated flooring assemblies documenting system performance.

Application:
Kinetics Noise Control’s premier rollout system easily creates an airspace of 1 to 4 inches and incorporates high-performance resilient dollies. The isolation material with Model KIP isolators selected and spaced according to design criteria offers major advantages over other systems. Installation labor is substantially reduced, as it is easier to roll out testing with pre-spaced isolators versus measuring and placing individual isolation mounts. This feature also ensures that the system will meet the high levels of steadiness required. This system is designed to meet requirements for load capacity, natural frequency/damp deflection, and acoustical performance.

Download Model RIM information including three-part specification, installation guidelines, and typical installation drawings at www.kineticsnoise.com/architects.asp or at the factory at 690-604-1209-F reading additional information about architectural sales. Purchase Model RIM and accessories through your local sales representative at www.kineticsnoise.com/specification.asp.

Noteworthy Projects
Over our 45+ year history, thousands of Kinetics Model RIM systems have been installed successfully under mechanical equipment rooms, gymnasium floors, rooftops, athletic and fitness centers, theater and cinema venues, recording and broadcasting studios, private residences; loading docks, gun ranges, and bowling centers around the world. Below, we’ve listed just a few of our noteworthy projects.

- University of Illinois Recreation Center
- Boston University Arena Mechanical Room
- 6th & Imarie Baraque Music Rooms
- Florida State University Communications Studios
- Cincinnati State Audio Studio and Control Room
- CNN Studio
- WWF Entertainment Studios
- ESPN Studio
- University of Akron Student Union Ballroom
- Nsamitz Basketball Hall of Fame Office and
Project Room
- Hamilton College Gymnasiium Subcontractor
- Ramsey County Law Center Gun Range
- National Underground Railroad Freedom Center
Mechanical Room
- Soldier Field-Chicago Bears Stadium
- University of Chicago Tutoring Rooms
- Illinois Professional Medical Building Mechanical Room
- Case Technical High School Mechanical Equipment
- Brown Camp Loft Condominiums

Call us to discuss your requirements for noise control, and learn how to employ the versatile, proven Model RIM System to solve your noise problems.

Esentials:
- Proven effectiveness over the lifetime of an installation.
- Quick installation time, especially compared to “plug-in” methods.
- System provides for total system performance and not just sound levels from heavy mechanical equipment rooms.
- Flexible capacities allowing design for any load; from light wood floors to heavy mechanical equipment rooms.
- When used in conjunction with ceiling and wall separation products, Model RIM is an essential component of “room-within-a-room” sound isolation construction.
- The isolation material with Model KIP isolators easily creates an airspace of 1 to 4 inches and incorporates high-performance resilient dollies. The isolation material with Model KIP isolators selected and spaced according to design criteria offers major advantages over other systems. Installation labor is substantially reduced, as it is easier to roll out testing with pre-spaced isolators versus measuring and placing individual isolation mounts. This feature also ensures that the system will meet the high levels of steadiness required. This system is designed to meet requirements for load capacity, natural frequency/damp deflection, and acoustical performance.
Concrete Float ed Floor:

Benefits:

- STC 73/EC 63 Test A2-b and A3
- Greater load capacity at a lower cost
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, unobtrusive installation
- Factory installation and supervision available
- Model RIM System successfully installed for over 45 years
- Natural frequency constant over a wide load range

Successfully installed for years under concrete floors found in mechanical rooms, studios, bathrooms, and theaters. Kinetics Noise Control's Model RIM System remains the leading formwork technique for isolating concrete slabs in any floor or roof system requiring sound abatement. An original, Model RIM System consistently provides continuous, high-performing noise control for critical applications. Our pour-in-place floor isolation system incorporates all critical components needed in a top-performing noise control system including Model KIP isolators fixed in fiberglas batting, Model PIB Perimeter Isolation Board, spray adhesives, plywood junction plates, polyethylene sheeting, and tape, and resilient, non-hardening perimeter sealant. Model KIP isolators spaced 12-, 16-, or 24-inches on center are available in different densities allowing for a multitude of load ranges under a single slab while maintaining a constant natural frequency. Factory-trained sales representatives can help designers determine which system to use based on dead and live load requirements. Kinetics Engineering Group will provide design submittals. The fiberglass batting with Model KIP isolators pre-spaced is rolled-up and delivered in poly bags along with the specified accessories to the job site.

Installation of Model RIM is quick and easy. Decouple the area being treated by installing Perimeter Isolation Board (Model PIB) around the perimeter of the room. Additionally, Model PIB is used as a resilient break against any other non-isolated elements such as cuts, drains, ductwork, adjacent floors, pipes, and walls. The fiberglass batt with pre-spaced isolation pads is then rolled out over the structural floor. A pouring form is created by placing polywood on top of the isolation, and is held together using junction plates and screws. Two layers of 6-mil poly overlapped and taped at the seams create the pouring form as temporary waterproofing. Concrete reinforcement is installed and concrete poured in place. As dictated by the designer, Tekfast can move about the floor to complete work in the space without the concrete having been cured to full strength—the floor is already positioned at final design elevation. There is no worry about keeping the floor clear for a second visit to "lift" the slab by an installation crew. The final installation step of the Model RIM System requires removing the Model PIB bear strap and sealing the perimeter of the floating floor with resilient, non-hardening caulk.

Wood Floated Floor:

Benefits:

- STC 66/EC 63 Test A15-a
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, unobtrusive installation

Installation of Model RIM System for a wood floated floor is similar to that of the isolated concrete slab. Starting with a level subfloor, a 3/4" thick strip of Model RIM (perimeter isolation board) is adhered to all non-isolated walls (the height of Model RIM is dictated by the height of the finished floor). The rolls of batting with secured pads are rolled out into place. If heavy point loads exist, individual Model KIP pads are then placed per submittal drawings. Typically, two layers of 7/16" plywood are used (seams staggered) over the isolation pads, and the finished floor is installed according to the manufacturer's instructions. Where extra noise control is required, layers of Model SRP (perimeter underlayments) can be sandwiched between the two layers of 7/16" plywood. This adds mass, an essential requirement to effective noise control—compare sound level A-15-a and A-15-b. The installation is completed by applying acoustical caulking to the top of the Model SRP board.
Concrete Floated Floor:

**Benefits:**
- STC 73/SC 70 Tests A2-b and A3
- Greater load capacity at a lower cost
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, in-transit installation
- Factory installation and supervision available
- Model RIM System successfully installed for over 45 years
- Natural frequency constant over a wide load range

Successfully installed for years under concrete floors found in mechanical rooms, studios, ballrooms, and theaters. Kinetics Noise Control’s Model RIM System remains the leading formwork technique for isolating concrete slabs in any floor or roof system requiring sound abatement. An original, Model RIM System consistently provides continuous, high-performing noise control for critical applications. Our pour-in-place floor isolation system incorporates all critical components needed in a top-performing noise control system including: Kinetics KIP isolators fixed in fiberglass batting, Model PIB Perimeter Isolation Board, spray adhesive, plywood junction plates, polyethylene sheathing and tape, and resilient, non-hardening perimeter sealant. Model KIP isolators spaced 12-, 16-, or 24-inches on center are available in different densities allowing for a multitude of load ranges under a single slab while maintaining a constant natural frequency. Factory-trained sales representatives can help designers determine which system to use based on dead and live load requirements. Kinetics Engineering Group will provide design submittals. The fiberglass batting with Model KIP isolators pre-spaced is rolled up and delivered in poly bags along with the specified accessories to the job site.

Installation of Model RIM is quick and easy. Decouple the area being treated by installing Perimeter Isolation Board (Model PIB) around the perimeter of the room. Additionally, Model PIB is used as a resilient break against any other non-isolated elements such as curbs, drains, ductwork, adjacent floors, pipes, and walls. The fiberglass batt with pre-spaced isolation pads is then rolled out over the structural floor. A forming form is created by placing plywood on top of the isolators, and is held together using junction plates and screws. Two layers of 5/8-mil overlapped and taped at the seams create the pouring form as temporary waterproofing. Concrete reinforcement is installed and then concrete poured in place. As directed by the designer, heels can move about the floor to complete work in the space without the concrete having been cured to full strength—the floor is already positioned at final design elevation. There is no worry about keeping the floor clear for a second visit to “36” the slab by an installation crew. The final installation step of the Model RIM System requires removing the Model PIB bear strap and sealing the perimeter of the floating floor with resilient, non-hardening caulk.

Wood Floated Floor:

**Benefits:**
- STC 66/SC 63 Test A15-a
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, in-transit installation
- Optional channels or nailers can be used for stiffness and increased airspace

Model RIM System wood floated floors are ideally suited for dance studios, lift style corridors, recording studios, and any other application where high performance noise control is required and the structure cannot support the weight of an isolated concrete slab. A Model RIM System wood floated floor surpasses performance of continuous underlayment due to the airspace and lower natural frequency created by the Model KIP pads spaced at 12-, 16-, or 24-inches on center. Model RIM System can be supplied to fit any load condition. Installation is easy and quick due to the pre-spaced Model KIP pads. Moreover, the natural frequency remains relatively constant over a wide range of loads, which is common in wood built construction (i.e. a piano in a music studio). Kinetics Noise Control invites comparison between our Model RIM System wood floated floor and any other product available.

Installation of Model RIM System for a wood floated floor is similar to that of the isolated concrete slab. Starting with a level subfloor, a 3/8" thick strip of Model SRP (perimeter isolation board) is adhered to all non-isolated walls (the height of Model SRP is dictated by the height of the finished floor). The rolls of batting with secured pads are rolled out into place. If heavy point loads exist, individual Model KIP pads are then placed per submittal drawings. Typically, two layers of ¾" plywood are laid (seams staggered) over the isolation pads, and the finished floor is installed according to the manufacturer’s instructions. Where extra noise control is required, layers of fiberglass are sandwiched between the two layers of ¾" plywood. This adds mass, an essential requirement to effective noise control—compare sound level A-15-a and A-15-b. The installation is completed by applying acoustical caulking to the top of the Model SRP board.

**Benefits:**
- STC 66/SC 63 Test A15-a
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, in-transit installation
- Optional channels or nailers can be used for stiffness and increased airspace

Wood Floated Floor:

**Benefits:**
- STC 66/SC 63 Test A15-a
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, in-transit installation
- Optional channels or nailers can be used for stiffness and increased airspace

Model RIM System wood floated floors are ideally suited for dance studios, lift style corridors, recording studios, and any other application where high performance noise control is required and the structure cannot support the weight of an isolated concrete slab. A Model RIM System wood floated floor surpasses performance of continuous underlayment due to the airspace and lower natural frequency created by the Model KIP pads spaced at 12-, 16-, or 24-inches on center. Model RIM System can be supplied to fit any load condition. Installation is easy and quick due to the pre-spaced Model KIP pads. Moreover, the natural frequency remains relatively constant over a wide range of loads, which is common in wood built construction (i.e. a piano in a music studio). Kinetics Noise Control invites comparison between our Model RIM System wood floated floor and any other product available.

Installation of Model RIM System for a wood floated floor is similar to that of the isolated concrete slab. Starting with a level subfloor, a 3/8" thick strip of Model SRP (perimeter isolation board) is adhered to all non-isolated walls (the height of Model SRP is dictated by the height of the finished floor). The rolls of batting with secured pads are rolled out into place. If heavy point loads exist, individual Model KIP pads are then placed per submittal drawings. Typically, two layers of ¾" plywood are laid (seams staggered) over the isolation pads, and the finished floor is installed according to the manufacturer’s instructions. Where extra noise control is required, layers of fiberglass are sandwiched between the two layers of ¾" plywood. This adds mass, an essential requirement to effective noise control—compare sound level A-15-a and A-15-b. The installation is completed by applying acoustical caulking to the top of the Model SRP board.
Concrete Floated Floor:

Installation Sequence:

1) Place Perimeter Board (Model PIB)
2) Roll-out Model RIM and cut as needed
3) Secure junction plates on plywood pouring form
4) Cover with poly layer. Ready to install reinforcement and pour concrete.

Benefits:
- STC 70/65/50 Tests A2-b and A3
- Greater load capacity at a lower cost
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, inexpensive installation
- Factory installation and supervision available
- Model RIM System successfully installed for over 45 years
- Natural frequency constant over a wide load range

Successful installation, consistent with concrete floors found in mechanical rooms, studios, bathrooms and theaters. Kinetics Noise Control’s Model RIM System remains the leading formwork technology for isolating concrete slabs in any floor or roof system requiring sound abatement. An original, Model RIM System consistently provides continuous, high-performing noise control for critical applications. Our pour-in-place floor isolation system incorporates all critical components needed in a top-performing noise control system including: Model KIP isolators fixed in fiberglass batting, Model PIB Perimeter Isolation Board, spray adhesive, plywood junction plates, polyethylene sheeting and tape, and resilient, non-hardening perimeter sealant. Model KIP isolators spaced 12-, 16-, or 24-inches on center are available in different densities allowing for a multitude of load ranges under a single slab while maintaining a constant natural frequency. Factory-trained sales representatives can help design engineers determine which system to use based on dead and live load requirements. Kinetics Engineering Group will provide design submittals. The fiberglass batt with Model KIP isolators pre-spaced is rolled-up and delivered in poly bags along with the specified accessories to the job site.

Installation of Model RIM is quick and easy. Decouple the area being treated by installing Perimeter Isolation Board (Model PIB) around the perimeter of the room. Additionally, Model PIB is used as a resilient break against any other non-isolated elements such as cutouts, doors, ductwork, adjacent floors, pipes, and walls. The fiberglass batt with pre-spaced isolation pads is then rolled out over the structural floor. A pour-in-place concrete is created by placing polywood on top of the isolators, and is held together using junction plates and screws. Two layers of ¾" plywood are laid (seams staggered) over the Model PIB Perimeter Isolation Board. A Model RIM System successful installation step of the Model RIM System requires removing the Model PIB bear strap and sealing the perimeter of the floating floor with resilient, non-hardening caulk.

Wood Floated Floor:

Installation Sequence:

1) Place Perimeter Board (Model SRP)
2) Roll-out Model RIM
3) Build-up isolated subfloor
4) Apply finish floor per manufacturer instructions

Benefits:
- STC 60/EC 63 Test A15-a
- Can be designed for any load range
- Easy to create 1", 2", 3", and 4" airspaces
- Fast, simple, inexpensive installation
- Optional channels or nailers can be used for stiffness and increased airspace

Model RIM System wood floated floors are ideally suited for dance studios, lift style sound rooms, recording studios, and any other application where high performance noise control is required and the structure cannot support the weight of an isolated concrete slab. A Model RIM System wood floated floor surpasses performance of continuous underlayments due to the airspace and lower natural frequency created by the Model KIP pads spaced at 12-, 16-, or 24-inches on center. Model RIM System can be supplied to fill any load condition. Installation is easy and quick due to the pre-spaced Model KIP pads. Moreover, the natural frequency remains relatively constant over a wide range of loads, which is common in wood built construction (i.e. a piano in a music studio). Kinetics Noise Control invites comparison between our Model RIM System wood floated floor and any other product available.

Installation of Model RIM System for a wood floated floor is similar to that of the isolated concrete slab. Starting with a level subfloor, a ¾" thick strip of Model SRP (perimeter isolation board) is adhered to all non-isolated walls (the height of Model SRP is dictated by the height of the finished floor). The rails of batting with secured pads are rolled out into place. If heavy point loads exist, individual Model KIP pads are then placed per submittal drawings. Typically, two layers of ¾" plywood are left (seams staggered) over the isolation pads, and the finished floor is installed according to the manufacturer’s instructions. Where extra noise control is required, layers of gypsum board can be sandwiched between the two layers of ¾ plywood. This adds mass, an essential requirement to effective noise control—compare sound level A15-a to A15-15-a. The installation is completed by applying acoustical caulk to the top of the Model SRP board.
Acoustical Tests

Noteworthy Projects

Over our 45-year history, thousands of Kinetics Model RIM systems have been installed successfully under mechanical equipment rooms, gymnasium floors, rooftops, aerobic and fitness centers, theater and cinema venues, recording and broadcasting studios, private residences, loading docks, gun ranges, and bowling centers around the world. Below, we’ve listed just a few of our noteworthy projects.

• University of Illinois Recreation Center
• Boston University Arena Mechanical Room
• Illinois & Illinois Barracks Music Rooms
• Florida State University Communications Studies
• Cincinnati State Audio Studio and Control Room
• CNN Studio
• WWE Entertainment Studios
• ESPN Studio
• University of Akron Student Union Ballroom
• Naimishah Basketball Hall of Fame Office and Project Room
• Romney County Law Center Gun Range
• National Underground Railroad Freedom Center Mechanical Room
• Soldier Field-Chicago Bears Stadium
• Eldor Shirt Leibs Condominiums

Call us to discuss your requirements for noise control, and learn how to employ the versatile, proven Model RIM System to solve your noise problems.

University of Idaho Recreation Center
Boston University Arena Mechanical Room
Illinois & Illinois Barracks Music Rooms
Florida State University Communications Studies
Cincinnati State Audio Studio and Control Room
CNN Studio
WWE Entertainment Studios
ESPNN Studio
University of Akron Student Union Ballroom
Naimishah Basketball Hall of Fame Office and Project Room
Romney County Law Center Gun Range
National Underground Railroad Freedom Center Mechanical Room
Soldier Field-Chicago Bears Stadium
Eldor Shirt Leibs Condominiums

Floor Isolation Theory:

Floor isolation systems are incorporated into building design to minimize floor impact noise and airborne sound transmission. A “floated” floor (or roof) is achieved by supported by resilient mounts installed on the structural floor or roof. The design of an effective isolation system is dependent on several factors including:

1.) Stiffness and mass of the structural floor,
2.) Isolation mount natural frequency and damping characteristics,
3.) Sound absorption in the airspace
4.) Control of sound flanking paths.
5.) Sound isolation mount natural frequency and damping characteristics.
6.) Control of sound absorption in the airspace
7.) Airplane height and venting.
8.) Mass and composition of the floated floor.
9.) Sound absorption in the airspace
10.) Control of sound flanking paths.

Creating airspace between the structural and isolated floors while decoupling the two floors with the appropriate resilient mount effectively controls noise transmission. Maximum effectiveness of floating floor composite construction is achieved when the finished floor is fully isolated from the building structure and non-structural components, such as ductwork and piping. Accordingly, airborne and impact noise transmisions are greatly reduced between the room incorporating the floating floor system and other parts of the building. Additionally, floating floor systems are often used to prevent transmission of vibration and airborne noise from entering into the space in which the floating floor is installed. One such application would be the construction of floating floors for a multiplex theater adjacent to a railway. Kinetics Noise Control floating floor systems offers the largest variety of isolation mounts to fit specific applications. These include resilient pre-compressed fiberglass pads, steel springs, and resonant or natural rubber pads. Acoustical test data for Sound Transmission Class (STC) and Impact Isolation Class (IIC) are available for several types of isolated flooring/assembly documentation system performance.

Application:

Kinetics Noise Control’s premier robust system easily creates an airspace of 1 to 4 inches and incorporates a high-performance resilient decoupler. The isolator material with Model KIP isolators selected and spaced according to design criteria offers major advantages over other systems. Installation labor is substantially reduced, as it is easier to roll out floating with pre-spaced isolators versus measuring for and placing individual isolation mounts. This feature also ensures that the system will reach the high levels of expected performance. This system is designed to meet requirements for load capacity, natural frequency/damping deflection, and acoustical performance.

Model RIM (Roll-out Isolation Material) System

Noteworthy Projects

Over our 45-year history, thousands of Kinetics Model RIM systems have been installed successfully under mechanical equipment rooms, gymnasium floors, rooftops, aerobic and fitness centers, theater and cinema venues, recording and broadcasting studios, private residences, loading docks, gun ranges, and bowling centers around the world. Below, we’ve listed just a few of our noteworthy projects.

• University of Idaho Recreation Center
• Boston University Arena Mechanical Room
• Illinois & Illinois Barracks Music Rooms
• Florida State University Communications Studies
• Cincinnati State Audio Studio and Control Room
• CNN Studio
• WWE Entertainment Studios
• ESPNN Studio
• University of Akron Student Union Ballroom
• Naimishah Basketball Hall of Fame Office and Project Room
• Romney County Law Center Gun Range
• National Underground Railroad Freedom Center Mechanical Room
• Soldier Field-Chicago Bears Stadium
• Eldor Shirt Leibs Condominiums

Call us to discuss your requirements for noise control, and learn how to employ the versatile, proven Model RIM System to solve your noise problems.

University of Idaho Recreation Center
Boston University Arena Mechanical Room
Illinois & Illinois Barracks Music Rooms
Florida State University Communications Studies
Cincinnati State Audio Studio and Control Room
CNN Studio
WWE Entertainment Studios
ESPNN Studio
University of Akron Student Union Ballroom
Naimishah Basketball Hall of Fame Office and Project Room
Romney County Law Center Gun Range
National Underground Railroad Freedom Center Mechanical Room
Soldier Field-Chicago Bears Stadium
Eldor Shirt Leibs Condominiums

Floor Isolation Theory:

Floor isolation systems are incorporated into building design to minimize floor impact noise and airborne sound transmission. A “floated” floor (or roof) is achieved by supported by resilient mounts installed on the structural floor or roof. The design of an effective isolation system is dependent on several factors including:

1.) Stiffness and mass of the structural floor,
2.) Isolation mount natural frequency and damping characteristics,
3.) Sound absorption in the airspace
4.) Control of sound flanking paths.
5.) Sound isolation mount natural frequency and damping characteristics.
6.) Control of sound absorption in the airspace
7.) Airplane height and venting.
8.) Mass and composition of the floated floor.
9.) Sound absorption in the airspace
10.) Control of sound flanking paths.

Creating airspace between the structural and isolated floors while decoupling the two floors with the appropriate resilient mount effectively controls noise transmission. Maximum effectiveness of floating floor composite construction is achieved when the finished floor is fully isolated from the building structure and non-structural components, such as ductwork and piping. Accordingly, airborne and impact noise transmisions are greatly reduced between the room incorporating the floating floor system and other parts of the building. Additionally, floating floor systems are often used to prevent transmission of vibration and airborne noise from entering into the space in which the floating floor is installed. One such application would be the construction of floating floors for a multiplex theater adjacent to a railway. Kinetics Noise Control floating floor systems offers the largest variety of isolation mounts to fit specific applications. These include resilient pre-compressed fiberglass pads, steel springs, and resonant or natural rubber pads. Acoustical test data for Sound Transmission Class (STC) and Impact Isolation Class (IIC) are available for several types of isolated flooring/assembly documentation system performance.

Application:

Kinetics Noise Control’s premier robust system easily creates an airspace of 1 to 4 inches and incorporates a high-performance resilient decoupler. The isolator material with Model KIP isolators selected and spaced according to design criteria offers major advantages over other systems. Installation labor is substantially reduced, as it is easier to roll out floating with pre-spaced isolators versus measuring for and placing individual isolation mounts. This feature also ensures that the system will reach the high levels of expected performance. This system is designed to meet requirements for load capacity, natural frequency/damping deflection, and acoustical performance.

Model RIM (Roll-out Isolation Material) System
Noteworthy Projects

Over our 45-plus year history, thousands of Kinetics Model RIM systems have been installed successfully under mechanical equipment rooms, gymnasium floors, rooftops, acoustic and fitness centers, theater and cinema venues, recording and broadcasting studios, private residences, loading docks, gun ranges, and bowling centers around the world. Below, we've listed just a few of our noteworthy projects.

- University of Illinois Recreation Center
- Boston University Arena Mechanical Room
- S&L & Imaire Barracks Music Rooms
- Florida State University Communications Studies
- Cincinnati State Audio and Studio Control Room
- CNN Studio
- WWF Entertainment Studios
- ESPN Studio East
- University of Akron Student Union Ballroom
- Nasimith Basketball Hall of Fame Office and Projection Room
- Ramsey County Law Center Gun Range
- National Underground Railroad Freedom Center Mechanical Room
- Soldier Field-Chicago Bears Stadium Renovation Rooftop
- Elder Shirt Leibs Condominiums

Call us to discuss your requirements for noise control, and learn how to employ the versatile, proven Model RIM System to solve your noise problems.

Noteworthy Projects

- Naismith Basketball Hall of Fame Office
- University of Akron Student Union Ballroom
- ESPN Studios
- WWF Entertainment Studios
- CNN Studios
- Cincinnati State Audio Studio and Control Room
- 8th & I Marine Barracks Music Rooms
- Boston University Arena Mechanical Room
- University of Illinois Recreation Center

Floor Isolation Theory:

Floor isolation systems are incorporated into building design to minimize floor impact noise and airborne sound transmissions. A "floated" floor (or rooftop) is supported by resilient mounts installed on the structural floor or rooftop. The design of an effective isolation system is dependent on several factors including:

1.) Stiffness and mass of the structural floor,
2.) Isolation mount natural frequency and stiffness,
3.) Airspace height and venting,
4.) Mass and composition of the floated floor,
5.) Control of sound flanking paths.
6.) Control of sound flanking paths.

Model RIM is an essential component of "room-within-a-room" sound isolation construction.

Download Model RIM information including three-part specification, installation guidelines, and typical installation drawings at www.kineticsnoise.com/arch/charts.aspx. For more information, call the factory at 800-959-1229 if needing additional information; ask for Architectural Sales.

Kinetics Noise Control, Inc. is continually upgrading its products. We reserve the right to make changes to this and all products without notice. Kinetics Noise Control, Inc. is continually upgrading its products. We reserve the right to make changes to this and all products without notice.

For more information, contact: Archsales@kineticsnoise.com