

**Kinetics Noise Control
KSCH**

Division 13 Special Construction

Part 1 – General

1.01 Work Included

- A.** Furnish all labor, materials, tools, and equipment; and, perform all operations necessary for the installation of resiliently suspended ceilings shown on contract drawings.

1.02 System Description

- A.** Resiliently suspended gypsum ceilings, where shown on drawings, shall be isolated from the building structure to reduce airborne sound and impact noise transmission.

1.03 Quality Assurance

- A.** The resilient isolation hangers and perimeter isolation material shall be designed and fabricated at the facilities of a nationally recognized manufacturer having a minimum of ten years experience in furnishing similar materials.

1.04 Submittals

- A.** Product test data shall be submitted to the designer for review and shall include a tensile load test to failure. Test report shall document that hanger achieves a safety factor of at least five times working load to failure. Test report shall be from an independent laboratory.
- B.** Product performance data shall be submitted to the designer for review and shall include an Airborne Sound Transmission Loss Test Report and an Impact Sound Transmission Loss Test Report for measurements conducted in accordance with ASTM E90-90 and ASTM E492-90, respectively. Test reports shall document a minimum STC 72 and IIC 51 for a resiliently suspended ceiling attached below a six-inch thick concrete slab and that consists of two layers of 5/8" thick gypsum board with 1-1/2" thick fiberglass batt in the cavity between the concrete slab and the top layer of gypsum board. Sound and impact test reports shall be from an independent laboratory.

Part 2 – Products

2.01 Materials

- A. The sound isolation materials specified herein shall be designed and manufactured by Kinetics Noise Control, Inc. Dublin, Ohio.
Represented by KPA Architectural Products in New England –
Contact Keith Peterson (508) 591-7500
- B. Ceilings shall be supported by the KSCH Hangers. Resilient hangers shall have sufficient capacity to sustain continuously applied ceiling weight without settling after initial deflection.
- C. Hangers shall be tested by an independent laboratory
- D. The isolation hanger shall incorporate two 1” deflection steel springs operating in parallel with each other; and shall provide 50% overload capacity. Each spring shall operate in series with a resilient, molded neoprene noise and vibration isolation pad. The two springs and neoprene pads shall be incorporated into a stamped steel hanger assembly which supports the isolated ceiling.
- E. The isolation hanger deflection shall be selected by the manufacturer to provide a maximum natural frequency of 3.3 Hz.

**** NOTE TO SPECIFIER ** Select standard (E), or APB-Air performance Bracket (F) configuration (note- a project could include both styles)**

- F. The hanger assembly bracket shall be designed to accept 1-1/2” x 1/2”, 16-gage cold-rolled steel (Cold Rolled Channel or CRC). Hanger bracket includes 3/8” threaded insert for attaching threaded rod below the hanger for optional equipment suspension below drywall ceiling.
- G. The hanger shall include an additional bracket and threaded insert to support 1-1/2” x 1/2”, 16-gage cold-rolled steel (Cold Rolled Channel or CRC) below the hanger plane
- H. Resiliently suspended ceilings shall be separated where non-isolated building components abut. Isolation material shall be 1/4” thick CPT Ceiling Perimeter Tape. CPT shall not be penetrated by nail, screw, or similar fastener. CPT shall be adhered to non-isolated structure. Resiliently suspended ceiling shall be constructed against CPT. CPT shall be sealed using resilient, non-hardening caulk.

Part 3 – Execution

3.01 Installation

- A.** The installation of all sound isolation materials specified herein, including those installed under other sections of the specifications, shall be in accordance with procedures submitted by the isolation material manufacturer, and approved by the Architect. Contractor is responsible for supplying all loads suspended by the isolation hangers and related documents for coordination, so that shop drawings can be performed by the manufacturer or it's representative for proper layout and spring selection. Architect approved shop drawings required prior to installation.

- B.** All building components supported by the isolation hangers shall be free from rigid contact with any part of the non-isolated building structure to prevent unwanted sound flanking.