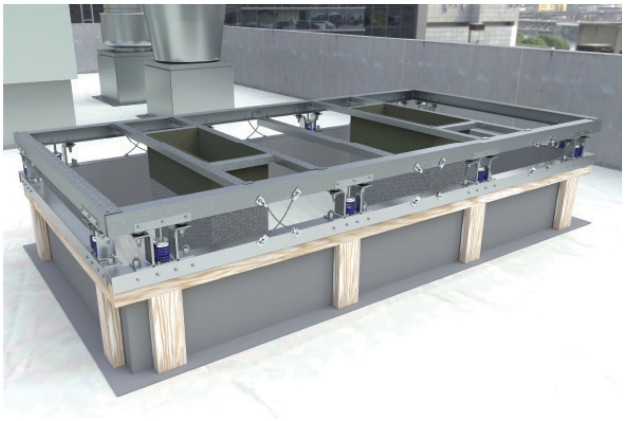
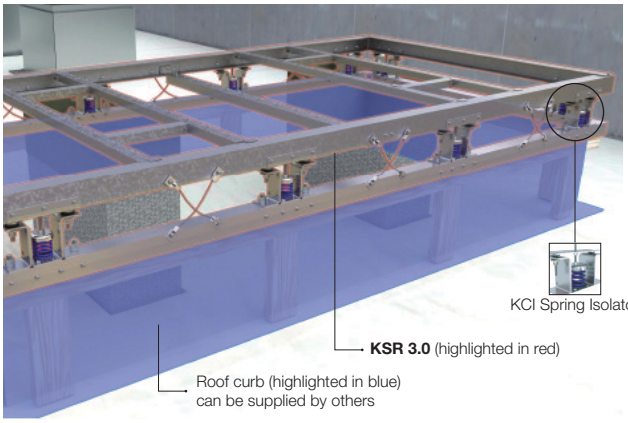
Kinetics KSR 3.0
Curb Vibration Isolation Rail

CMSDANSKIN ACOUSTICS

Technical Data Sheet

The KSR 3.0 is recommended for restrained isolation of small-to medium-sized pieces of mechanical equipment near critically quiet areas when there is also a need for wind or seismic restraint.





FEATURES & BENEFITS

- Customisable Flexibility:
  Adjustable springs ensure perfect leveling on any unit
- Tailored Fit:
  Top channel options for various base rail depths
- Effortless Installation:
  Factory-assembled parts and pre-assembled isolators make setup a breeze
- Built-In Safety:
  Integrated seismic and wind restraints enhance security without extra labour
- Extra Assurance:
  Pre-installed restraint cables for high wind and seismic applications
- Ships partially assembled
- Universal fit, compatible with most factory-provided room curbs
- Horizontal and vertical seismic and wind restraints
- Flexible duct connector supports
- Pre-installed integrated isolation springs (KCI)
- Factory-provided weather seal

APPLICATION

KSR 3.0 vibration isolation rails are specifically designed and engineered for use as a noise and vibration isolation system for roof curb-mounted mechanical equipment.

KSR 3.0 equipment isolation rails are compatible with most roof-supported equipment and standard sheet metal roof curbs where the wood nailer is located under the top flange without modification. KSR 3.0 provides support, noise and vibration isolation, and an air and water seal for supported equipment.

Typical applications include support and isolation for unitary-packaged air-handling and refrigeration equipment, and exhaust fans, ordinarily mounted directly on non-isolated roof curb systems.

KSR 3.0 isolation rails significantly reduce noise and vibration transmitted from rooftop equipment into roof structures by using equipment weight as an inertia mass to load high-deflection, housed stable springs integrated with continuous isolation rail system.

OPTIONS

- 25mm and 50mm deflection springs
- Airborne noise control package
- Multiple roof pitch interface
- Equipment to KSR Attachment Bolt (KRT)
- Certification of seismic and wind load engineering
  * Please request before ordering

KINETICS Noise Control

SPECIFICATIONS

Curb-Mounted Restrained Spring Rail: Model KSR 3.0

All rooftop air-handling units shall be supported by vibration isolation rails as manufactured by Kinetics Noise Control. The vibration isolation rails shall be designed to resiliently support the equipment at the specified elevation and shall attach to the OEM curb to create a fully enclosed air- and weather-tight system. The isolation rail shall consist of an upper support rail with supply and return flexible connector supports on which the equipment and duct openings rest and a lower angle which is attached to the OEM roof curb, separated by free-standing, housed, adjustable, laterally stable steel springs with integral lateral seismic and/or wind load restraints. When required to meet project codes, cable pairs shall be incorporated to tie the upper rail to the curb below. The upper support rail shall provide continuous structural support for the rooftop equipment and shall be designed to provide isolation against casingradiated vibration in the rooftop equipment housing and structure-borne vibration from rotating and mechanical equipment in the rooftop package.

Spring components shall be 25mm and 51mm deflection. Springs shall have a lateral stiffness greater than 1.0 times the rated vertical stiffness and shall be designed for a typical 50% overload to solid. All springs shall have a polyester powder coated finish and be color coded to indicate load capacity. Upper support rail and lower attachment angle are connected by adjustable spring isolators and covered by a continuous air- and water-tight seal drape.

Rail assemblies shall incorporate means for attachment to the OEM curb and the supported equipment and shall incorporate additional stiffening members if necessary to ensure stability. Supply and return flexible connector support hardware shall be supplied. The supports will be clearly marked and dimensioned on the submittal and installation drawings. The support hardware shall be cut-to-length, galvanized steel channels supported and connected with stamped and punched galvanized steel duct support hangers. The support hangers shall allow the duct support elevation to be equal to or lower than the equipment rail elevation. Supply and return air duct shall be flexibly attached by the contractor to prevent transmission of vibration to the building structure. The isolation rail assemblies shall be shipped to the job site with the upper support rail, lower attachment angle, springs, and seal strip. The contractor shall assemble the four corners and attach the rail to the roof curb, then adjust springs per factory specifications.

Vibration isolators shall be selected by the manufacturer for each specific application to comply with deflection requirements as shown on the Vibration Isolation Schedule or as indicated on the project documents.

Roof curb shall be Model KSR 3.0 as manufactured by Kinetics Noise Control.

ASSEMBLY OPTIONS

Partial assembly of Kinetics KSR 3.0 has the four independent sides of the rail factory assembled,with the corners connected in the field.

KINETICS Noise Control

Supplied by:
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