



## KINETICS® KSR: Roof Curb Rail

A noise and vibration control system that goes beyond internal isolation

### Standard Features

- Shipped Knocked Down
- Noise and vibration control
- Horizontal and vertical seismic and wind restraints
- Multiple spring deflection options
- Universal fit, compatible with most curb-mounted equipment
- Continuous air- and water-tight seal

### Options

- 1- and 2-inch Spring Deflection
- Airborne noise control package
- Flexible connector supports
- Full Assembly Available

### Description

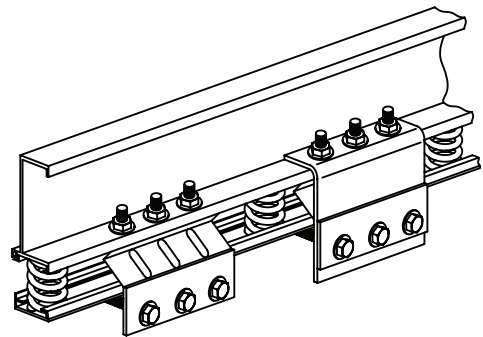
**KINETICS** KSR roof curb rail isolation system is engineered to isolate packaged rooftop equipment from the roof structure. KSR goes well beyond internal isolation by reducing casing-radiated vibration caused by turbulent air flow as well as compressor and fan vibration.

KSR roof curb rails have a positive elastomeric air and weather seal permitting the inside of the unit to be used as a return air plenum. Kinetics KSR mates with the inside of the manufacturer's curb eliminating any internal interference.

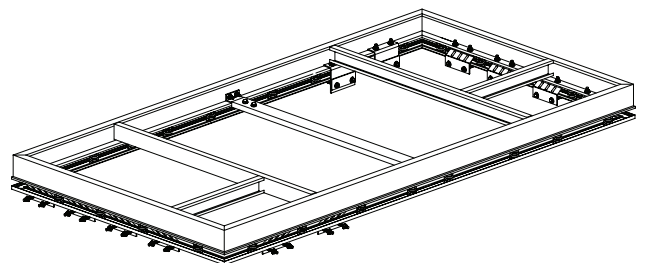
### Assembly Options

KSR ships knocked down (partially assembled) for all curbs where the longest rail is 21-feet or less in length. Contact the factory for rails where the longest rail is greater than 21-feet. For all KSR options, some field assembly is required.

**Knocked Down** is a partial assembly of the KSR that has the four independent sides of the rail factory assembled, with the corners connected in the field.



**Full assembly** allows for the rail to be taken directly from the delivery truck and placed on to the rooftop curb (by others). Full assembly is available for units where the longest rail is 8-feet or less in length. Additional fees apply for full assembly.



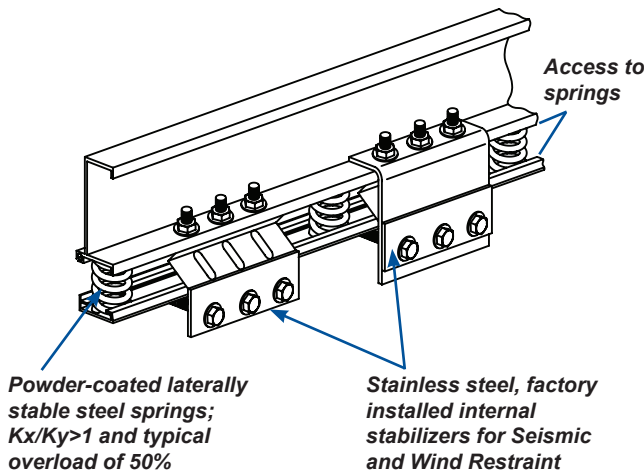
## Application

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

KSR 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 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 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, free-standing, stable springs integrated with the continuous aluminum isolation rail system.



## Specifications

Spring components shall be 1" (25 mm), 2" (51 mm) deflection, free-standing, unhooused, laterally stable steel springs. Springs shall have a lateral stiffness greater than 1.0 times the rated vertical stiffness and shall be designed for 50% (nominalized) overload to solid.

Springs shall be color coded to indicate load capacity.

Rails shall provide continuous support for the rooftop equipment and shall be designed to provide isolation against casing-radiated vibration in the rooftop equipment housing and structure-borne vibration from rotating and mechanical equipment in the rooftop package.

Rail assembly shall consist of extruded aluminum top and bottom members connected by spring isolators and a continuous air- and water-tight seal. The seal shall be a beaded elastomeric material retained in a keyway along the top extrusion. The weather strip shall be sealed along the bottom with an aluminum fascia strip.

Rail assemblies shall incorporate means for attachment to the building and the supported equipment and shall incorporate additional stiffening members if necessary to assure stability.

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 rails shall be model KSR as manufactured by Kinetics Noise Control, Inc.



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