

VIR System:

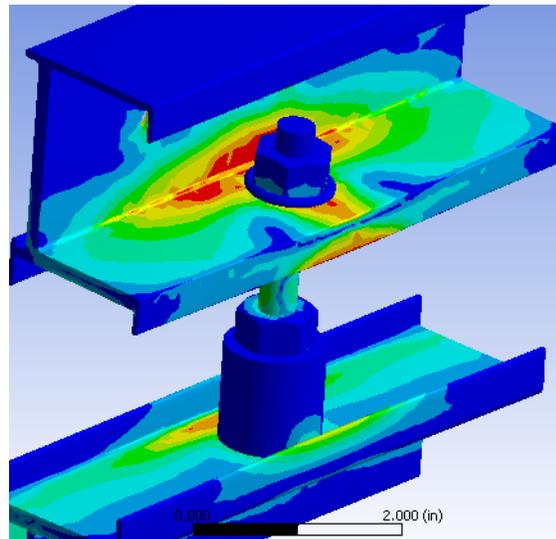
The VIB-ISO RAIL (VIR) is a U.S. patented system is designed to sit between an existing roof curb and curb mounted piece of equipment. The VIR is designed to reduce the vibration from a curb mounted piece of equipment to the building structure. Along with reducing the vibration from the roof-top-unit, the VIR also acts as a seismic and wind restraint to keep the unit attached to the roof curb. Each VIR system will be engineered to match the roof-top-unit and meet any customer requirements. The VIR system is available in either 1" or 2" deflection depending on the customer's requirements. The VIR system is shipped nearly fully assembled with the springs and restraints installed at the factory to reduce onsite labor. On site, the VIR design allows for quick assembly requiring only basic tools to install it to the existing roof curb.



Assembled VIR System

Attributes:

Why use vibration isolation under your roof-top-units? Prepackaged roof-top-units have a number of different components that can create mechanical vibration. Some of these can be individually isolated but most cannot. The simplest and most economical way to solve this issue is to place the entire unit on a vibration isolation rail. The VIR system uses coil spring as a resilient media to absorb the vast majority of the vibration energy emanating from the unit.

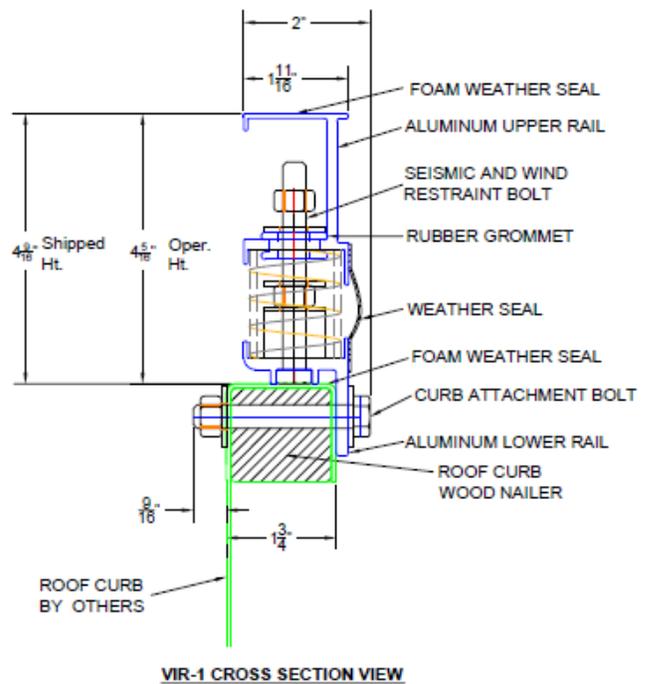
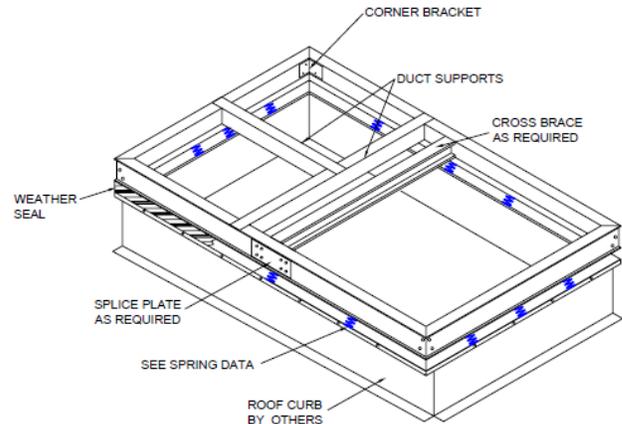


FEA analysis showing the VIR under load

The VIR system was designed using the latest in finite element analysis technology, more commonly known as FEA. The VIR seismic and wind restraints are integrated into the design allowing the rails to be shipped assembled with the restraints installed, thus ensuring proper installation of the restraints.

Suggested Specification:

1. Aluminum vibration isolation rails must give continuous support and isolation between the roof curb and the unit.
2. Seismic and wind restraints shall be integrated within the upper and lower rail and assembled by the rail manufacturer to ensure quality.
3. The upper and lower rails should be made of high strength aluminum to ensure strength and corrosion resistance.
4. The springs must be installed by the manufacturer to ensure proper placement and quality.
5. The upper and lower rails need to be sealed from the environment using a flexible membrane.
6. All connections to the unit need to have flex connectors to ensure proper isolation from the building structure.
7. Curb mounted roof top equipment should be isolated by a VIR system.



Taking the Hassle and Risk out of the HVAC retrofit business for over 30 years!