



**the pate company®**  
quality prefabricated roof components

# PRODUCT DATA SHEET

## Pate Vibration Isolation Rails (P VIR)

The Pate Vibration Isolation Rails (P VIR) system is designed to significantly reduce the mechanical vibration transmitted to the building structure from HVAC equipment mounted to roof curbs or equipment supports. Along with reducing the vibration from the equipment, the P VIR also acts as a seismic and wind restraint to keep the equipment attached to the curb or supports, and ultimately to the building structure.

The system is shipped fully assembled, with the springs and restraints in place, to eliminate the need for any onsite assembly. Once on the job site, the P VIR design allows for quick attachment to the roof curb or equipment supports, requiring only basic tools and minimal time. When ordered with new Pate curbs or supports, the rails can be attached to these products at our factory, further reducing field installation time.

### PRODUCT HIGHLIGHTS

- Efficient on-site assembly
- Integrated seismic and wind restraints
- Additional restraint stiffener
- Pre-loaded spring assembly
- High strength aluminum alloy
- Patented system
- Short lead times

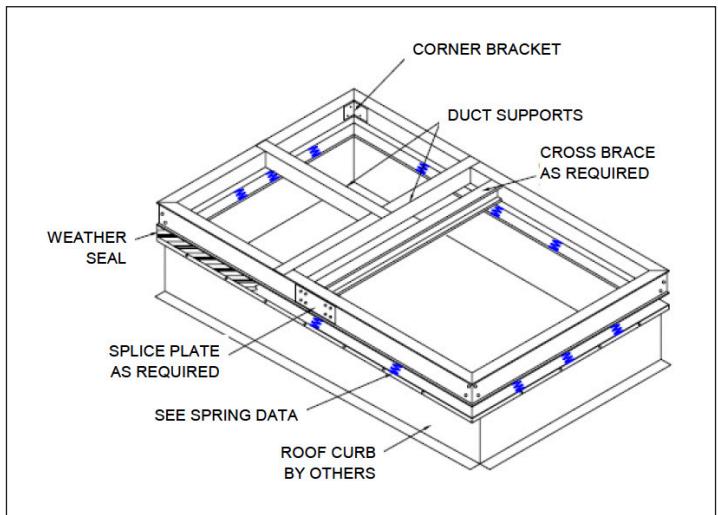
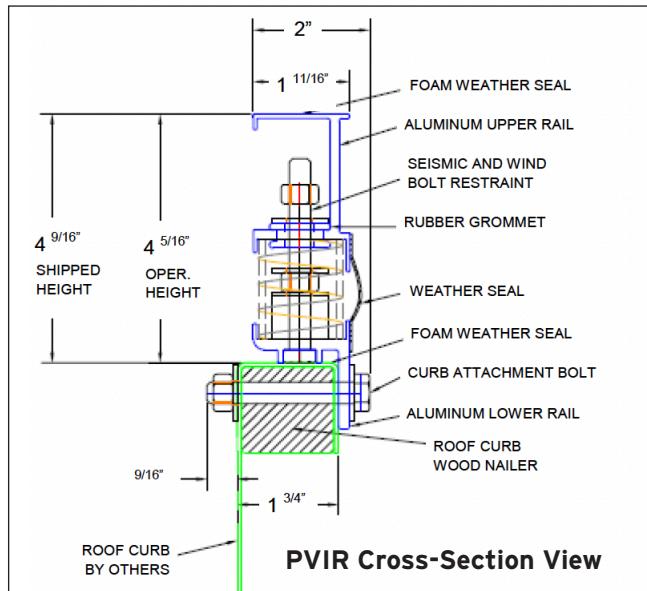
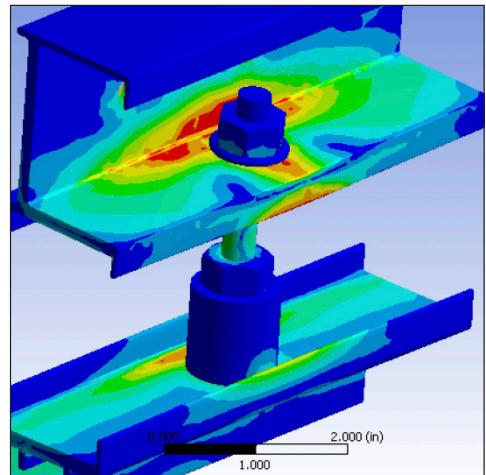


*Part of the Pate Sound Reduction & Vibration Isolation Product Line*

## PVIR Technical Details

Each PVIR system is engineered to match the specified unit and meet any individual project needs. The system is available in either 1" or 2" deflection, depending on the extent of vibration isolation required. 1" deflection yields 90% vibration isolation, and 2" deflection yields 98% vibration isolation.

The PVIR system was designed using the latest in finite element analysis technology (FEA). The seismic and wind restraints are integrated into the design, allowing the rails to be shipped assembled with the restraints installed, eliminating the chance of improper installation in the field.



## The importance of vibration isolation

Why should you use vibration isolation under your rooftop units? Prepackaged RTUs 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 Pate PVIR system uses coil springs as a resilient media to absorb the vast majority of the vibration energy emanating from the unit.

*For more information about the Pate Vibration Isolation Rails, or other Pate products, please visit us at [patecurbs.com](http://patecurbs.com) or email us at [sales@patecurbs.com](mailto:sales@patecurbs.com).*