

Assembly Instructions

READ THROUGH THESE INSTRUCTIONS PRIOR TO STARTING ASSEMBLY.



Noise and vibration are two primary concerns with lab exhaust systems. Vektor-C series lab exhaust fans are often mounted using spring isolators to reduce the transmission of noise and vibration into the building. The correct installation of spring isolators is often overlooked, but is critical to preventing noise and vibration from entering the building.

Spring isolators incorporate a steel housing and rubber snubbing washer system designed to prevent any direct metal-to-metal contact between the fan base and the fixed isolator housing. A leveling bolt is used to adjust the isolator to maintain a gap between the fan base and the steel housing of the isolator. Failing to install the rubber washers correctly or not installing them at all will result in direct metal-to-metal contact between the fan base and the isolation mount. This is undesirable because it fails to isolate the fan from the mount, allowing noise and vibration to enter the building. Installing these rubber washers incorrectly or not at all and/or failing to keep the leveling bolt vertical are two common installation errors that result in field problems.

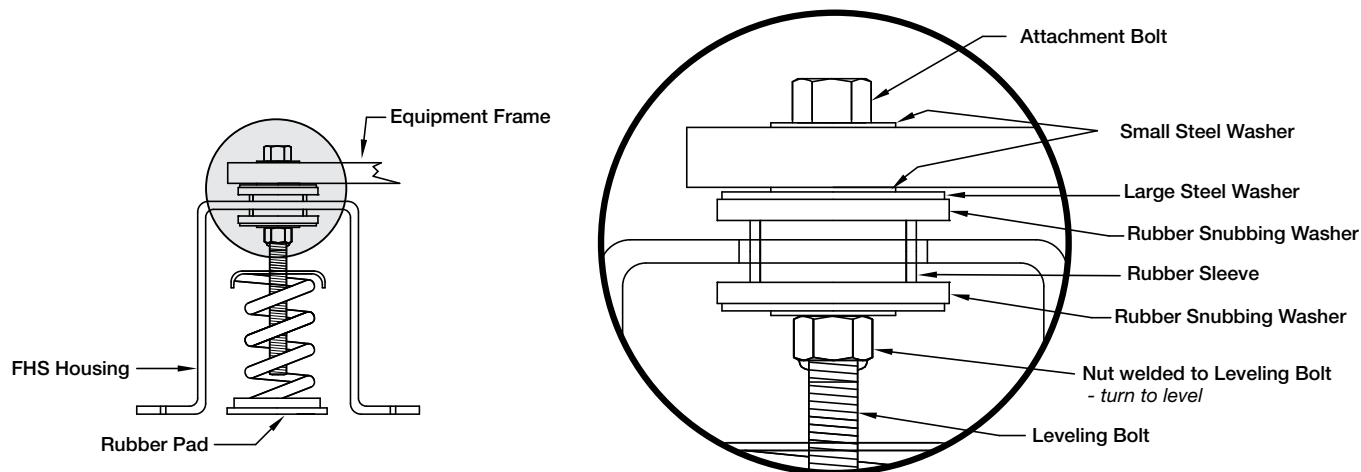
If the isolators are installed correctly, but noise and vibration are still entering the building, the fan should be inspected for equipment that is rigidly connected to the fan and building. The most common instance of this is using rigid conduit, which can permit noise and vibration into the building. Flexible conduit should always be used when running wiring to equipment that is support by spring isolators.

When installing spring isolators, the final adjustment is done by adjusting the leveling nut on each isolator to keep the isolator housing vertically centered between the rubber washers, preventing any metal-to-metal contact between the fan base and the isolator housing. When adjusting the isolators it is important to work around the fan until all isolators are correctly adjusted. A common installation error is to adjust each isolator just once. When adjusting an individual isolator it can shift the fan such that other isolators become improperly adjusted requiring them to be re-adjusted. Working around the fan until all isolators are adjusted correctly may take up to 45 minutes, but will help to ensure that the fan is isolated from the structure.

Looking for improperly adjusted isolators, isolators that are missing components, or other equipment rigidly connected to the fan and building are good starting points for diagnosing vibration and noise problems with spring isolated fans. Consult the Installation Instructions for Type FHS Kinetics Spring Isolation Mount for more detailed instructions on installing spring isolators.

If your contractor has questions regarding isolator installation, please feel free to contact the Vektor Support team @ 1-800-835-8677 for assistance.

INSTALLATION INSTRUCTIONS FOR TYPE FHS KINETICS SPRING ISOLATION MOUNTS



1. Coordinate the location of each isolator with the appropriate submittal drawing.
2. Remove the attachment bolt and one washer from the top of the leveling nut. Insert the attachment bolt into the equipment bracket; it is not necessary to install the spring at this point.
3. Align the equipment and center the isolator housings on the leveling bolts, then mark the isolator housing anchor bolt location.
4. Raise the equipment or equipment base and install the isolator anchors in the floor.
5. Locate the springs and lower the equipment. Note the FHS housing should support the equipment with approximately the desired floor clearance. Take care not to push the equipment sideways.
6. Install anchor nuts to firmly attach the FHS housing to the floor or housekeeping pad.
7. Loosely bolt equipment to the isolator using the attachment bolt.
8. Adjust the isolator by turning the leveling nut counterclockwise one or two turns at each isolator until the FHS housing top plate is centered between the rubber snubbing pads on the leveling screw. Discontinue turning at any location where the housing top plate has been centered, continue the adjustment of the remaining isolators.
9. Tighten the attachment bolt, thus bolting the spring to the supporting equipment and locking the leveling bolt against turning.
10. Do not attempt to move the isolators laterally with the weight of the equipment on them. If it is necessary to move the equipment, remove the weight from the isolators by raising the equipment before moving.
11. Final adjustment of all isolators must be done by adjusting the leveling nut on each isolator to keep the FHS housing centered between the rubber washers. The rubber washers should be loose and not pinched. Work around the fan—adjusting each isolator separately. Keep in mind as you adjust one isolator, another isolator may be improperly loaded. Keep working around the fan until all isolators are loaded properly. This adjustment may take 30 to 45 minutes for a single fan.

