
Guidelines for Bin & Hopper Vibrator Installations

When using a vibrator to aid the flow of bulk solids from bins and hoppers, it is very important to properly install the vibrator so that the desired effect is achieved without causing damage to your structure.

These general rules apply to most any bin or hopper vibrator installation:

1. In all single vibrator installations, mount the vibrator at 1/3 of the distance from the discharge to the top of the cone section.
2. In applications where two vibrators will be installed, mount the vibrators 180 degrees apart. The first vibrator should be mounted 1/4 of the way up the cone section, the second vibrator 1/3 of the way up.
3. Where multiple units are installed, space them equally around the circumference of the cone section, spiraling them up the cone section.
4. On rectangular-discharge bins, the vibrators can be more effective if mounted on opposing sides of the bin, at opposite ends (caddy-corner from each other).
5. If the sloped walls of a hopper vary in degree of slope, apply the vibrator on the wall with the slope that most opposes the gravity flow of material (the side with the least slope).
6. The vibrator mount must always be rigid - never flimsy or weak. Vibrators mounted to a weak structure will cause damage to the structure, and will perform poorly.
7. Vibrators must NEVER be bolted directly to the hopper wall. Chances are, a mount of this type will be weak, and there will be no access for tightening the mounting bolts.
8. Linear vibrators will operate in virtually any position; vibrators with bearings should be mounted so that the shaft is parallel to the ground.
9. When mounting a vibrator to a curved surface, it is necessary to use a channel mount to provide a flat surface to which the vibrator can be attached.
10. Mounting structures must NEVER be continuously welded to the vessel. Use skip welds only, and never within one inch of the corners of the mounting plate, channel, or stiffener plate.

Before installing any vibrator on your structure, make sure that the vibrator you have is properly sized for your application, and be sure to install appropriate safety and control components. For assistance, please contact the Houston Vibrator Sales Department at 800.320.4044, or sales@houstonvibrator.com.