



Kinetics Noise Control
6300 Irelan Place
Dublin, OH 43017-0655

HS-2 Installation Instructions

1) The Kinetics Model HS-2 Snubber is a 2 axis (horizontal loads only) restraint designed to restrict lateral motion which results from external loads acting on resiliency mounted equipment. For single axis or restraints which can handle uplift loads, refer to Kinetics Model HS-1, HS-3, or HS-4 snubbers.

2) The Kinetics Model HS-2 Snubber is to be installed such that the resilient surface of the floor-mounted post will contact the interior surface of the base-mounted restraint bracket once the equipment has been displaced approx. 1/8" in any horizontal direction. (In the nominal or unloaded condition there should be approx 1/8" air space between the resilient surface of the post and the restraint bracket hole diameter.)

3) Because each HS-2 can handle horizontal loads in any direction, some applications involving equipment with low centers of gravity may require only 2 restraints. However, variations in the horizontal CG location or the physical size of the supported equipment may make the use of additional restraints necessary.

4) The precise location of the Snubber is either as indicated on the drawings submitted, or in lieu of drawings, should be as follows: In instances where 2 restraints are used, they should be located at the midpoint of the long axis of the equipment base. In the case of 4, they should be located either as close to the corners as possible or at the midpoint of each side. (If the CG of the unit in the plan view varies from the geometrical CL significantly, corner restraint locations should be used.)

5) The Snubber should be fitted only after the isolated equipment is mounted, piped, etc., and is ready for operation. The post (lower half of restraint) should then be set on the floor in its approximate mounting location. The restraint bracket (upper half of the restraint) should then be placed over the post with a 1 1/4" gap between the underside of the bracket and the floor for the HS-2-2000 and 4000 or a 2" gap for the 6000 and 8000. It should then be welded to the side of the base. The upper bracket of the HS-2-2000 and 4000 can be welded with a 1/4" weld for the full height of the sides of the bracket. The upper bracket of the HS-2-6000 and 8000 can be welded with a 3/8" weld for the full height of the sides of the bracket. An option in either case would be a weld half as large, but welded all around the bracket.

6) Center the post (lower half of the restraint) on the clearance hole in the upper bracket and then either weld or bolt to the floor structure. Bolts should be through bolts (A307 or better) and should connect to structural steel capable of withstanding the max loads that can be generated by the restrained equipment. Anchors are to be installed in accordance to applicable code standards. In lieu of standards, anchors are to be embedded a minimum of 3" for 3/8 anchors or 4" for 1/2 and 5/8 anchors or 5" for 3/4 anchors. Also they are to be a minimum of 6 bolt diameters from the edge of the slab in which they are embedded. If welded, a 3/8" weld for the full width of the attachment plate would be required at each

end. (Note: the bottom surface of the attachment plate must be fully supported by a substantial surface such as steel or concrete. It is not permissible to allow the outer edge to overhang a supporting member.)

7) Once installed, operate the restrained piece of equipment to ensure that it does not contact the snubbers during normal running operation.



