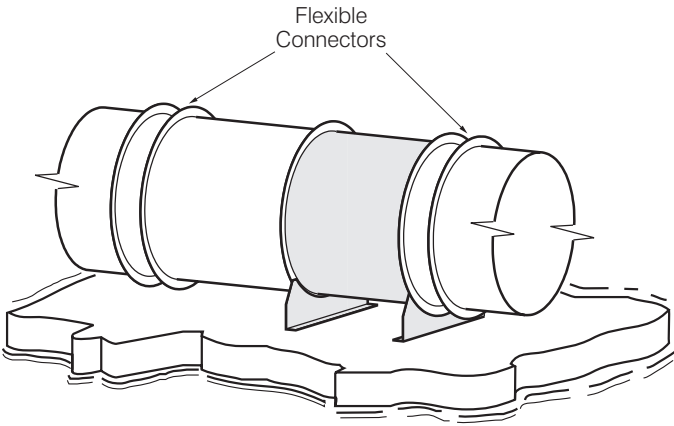


## 5.0 VIBRATION ISOLATION

**Figure 5.1. - Isolating vibrating fans**

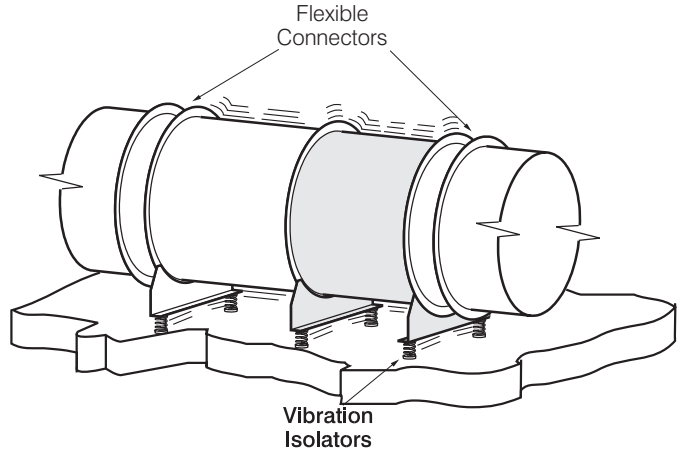
Vibration transmission through building structures is a frequent problem.

**X Don't**



Do not bolt fan directly to the building structure as noise and vibration can be transmitted directly to the building fabric.

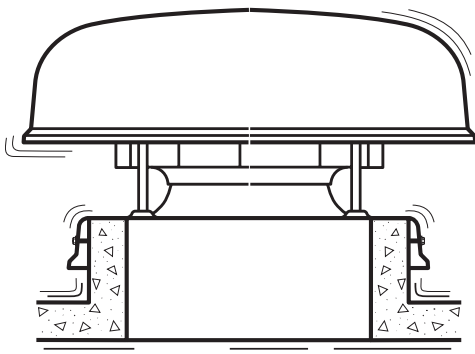
**✓ Do**



Isolate fan and duct from the building structure with fan on neoprene or spring isolators and suitable flexible connectors.

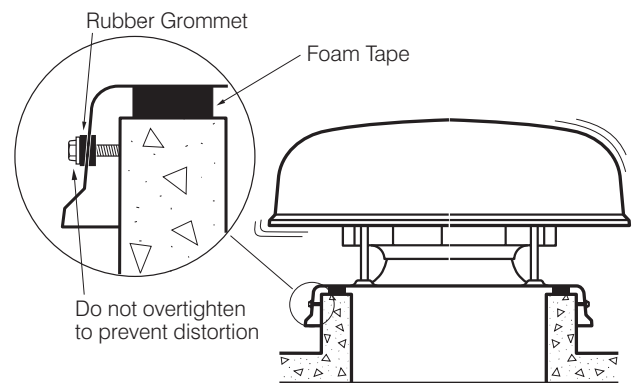
**Figure 5.2. - Isolation of roof mounted fans**

**X Don't**



Do not hard mount roof mounted fans to upstands.

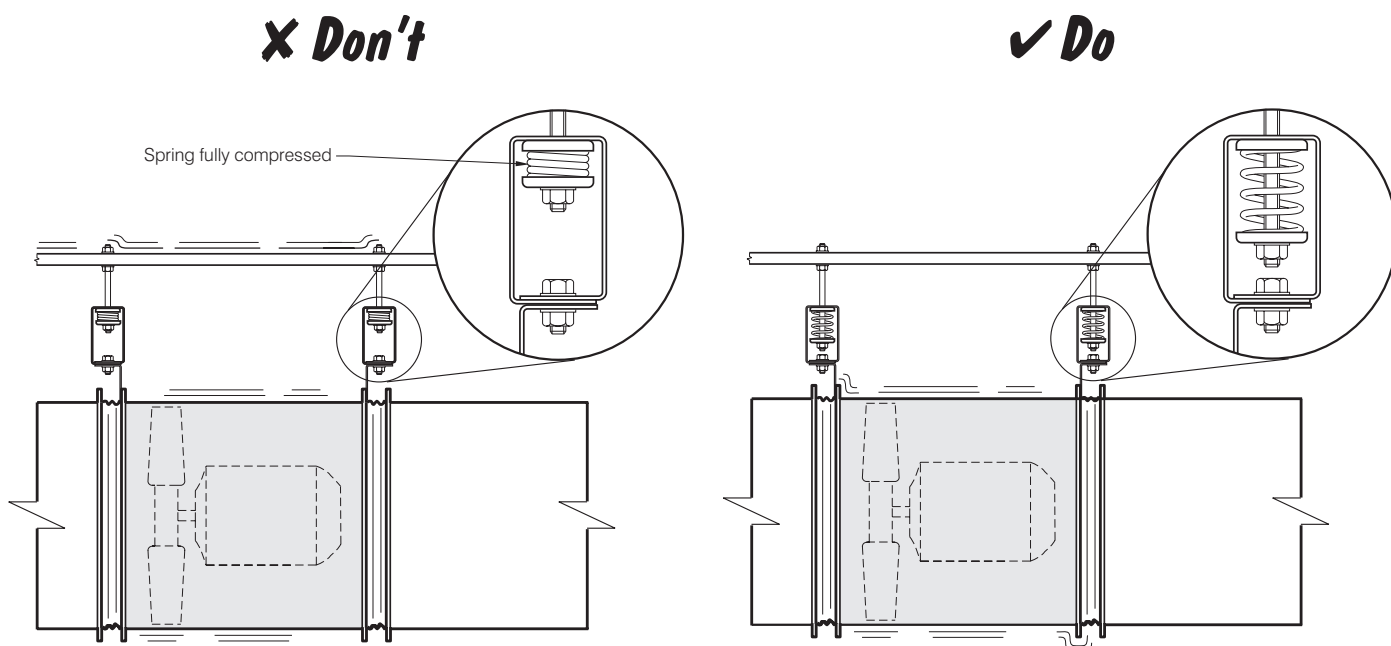
**✓ Do**



Do isolate roof mounted fans from the duct work, and upstand by using a foam tape between the top of the upstand and the fan. Where the fan is fixed to the upstand with bolts or screws use rubber / neoprene grommets.

## 5.0 VIBRATION ISOLATION (Cont.)

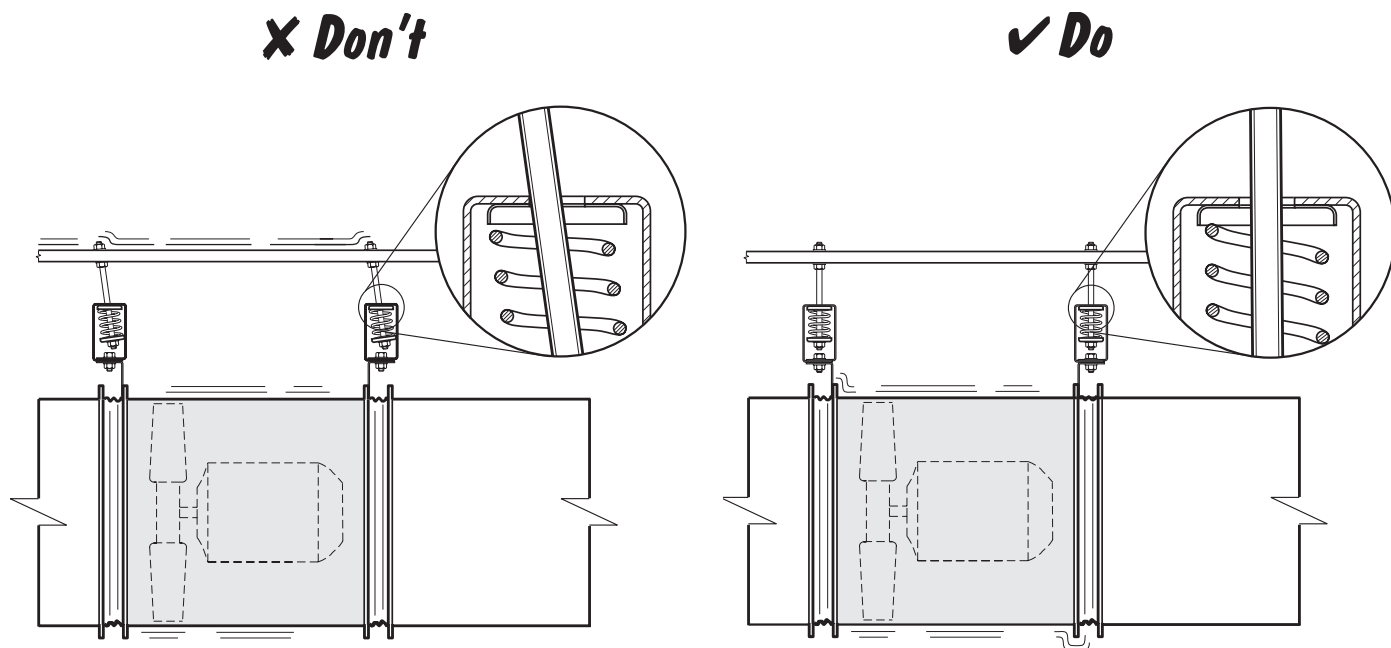
Figure 5.3. - Correct sizing of spring mounts



Don't overload spring mounts.

Ensure that spring mounts are sized correctly for the job. Be careful to include the weight of ductwork (and any other piece of equipment) if they are going to be supported by the vibration isolators. Also ensure spring mounts incorporate neoprene or rubber pads to eliminate noise which can travel through a steel spring.

Figure 5.4. - Short circuiting of vibration mounts



Don't allow short circuiting of vibration mounts.

Do ensure vibration mounts are free from short circuiting by making sure that the hanger rods are central and not in contact with the hanger cage. Ensure no debris, or other connection is creating another path through which the vibration could transmit.