

OPERATION & MAINTENANCE

NEVER OPERATE A VIBRATOR WITH DISCHARGE GATE CLOSED. IF POSSIBLE INTERLOCK OPERATING VALVE WITH DISCHARGE GATE. OPERATING A VIBRATOR WITH GATE CLOSED WILL CAUSE MATERIAL TO PACK.

Air Supply Information

- All vibrators should be operated with filtered, regulated air supply.
- 20 to 90 psi air pressure is adequate in most cases. Excessive pressure above this range will greatly reduce efficiency and cause excessive wear to vibrator & structure.
- Air consumption is greatly reduced when vibrator control is interlocked with solenoid valves operated by timers, conveyors, feeders, etc. Consult HVI for information on installing timers & solenoids in-line.
- Continuous vibration is not usually necessary. Short bursts of a few seconds each will usually dislodge stubborn material.
- For multiple vibrator applications, refer to the chart below to make sure that your air line header is large enough to support all units.

MODEL	HEADER PIPE SIZE				
	3/8"	1/2"	3/4"	1"	1-1/4"
HVT-150	7	11	18	32	62
HVT-280	4	9	16	27	53
HVT-320	2	4	9	17	30

Periodic Maintenance

- Inspect mounting welds for any cracks & repair if necessary.
- Make sure mounting bolts are tightened properly.
- Check filter and drain bowl to remove water & other contaminants.
- Check for air leaks in valves and hoses.

Troubleshooting

If Vibrator will not operate:

- Check for adequate air pressure/volume.
- Check air hoses/pipes for leaks
- Check that quick-opening valve is operating properly, and that vibrator is within 15 feet of valve.

If Vibrator is sluggish or slow to start:

- Check interior for airline trash, make sure that filter is not clogged.
- Check for defective operating valve.
- Check for loss of air supply pressure or volume.
- Make sure that exhaust muffler is not clogged



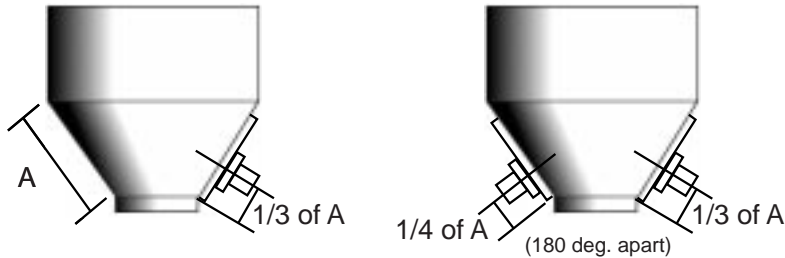
HVT SERIES TURBINE VIBRATORS

Installation & Operation Manual



VIBRATOR PLACEMENT

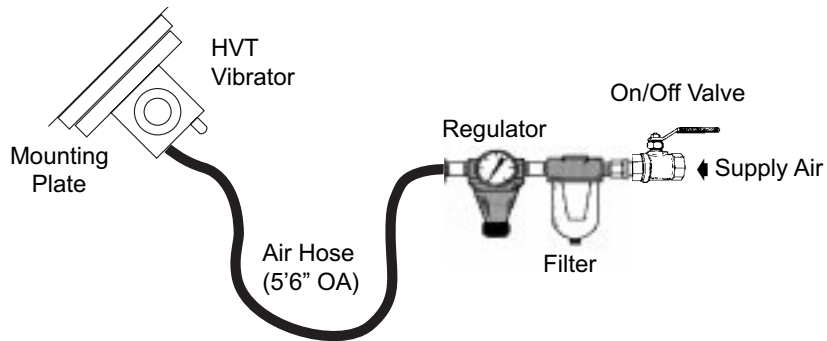
Most applications require only one vibrator. However, multiple units may be used in some instances. When installing only one unit, place the vibrator at 1/3 of the distance from the discharge to the top of the cone section of the hopper (distance A). When installing two units, place them 180° from one another around the perimeter of the hopper, with one unit at 1/4 of A, and one at 1/3 of A, as shown below. For three units, place them 120° from one another around the perimeter, with one at 1/4 of A, one at 1/3 of A, and one at 1/2 of A. Contact HVI for assistance in installing more than three units on one hopper section.



SYSTEM COMPONENTS

In order for your HVT Series Turbine Vibrator to operate properly, your installation must include a vibrator, a mounting plate, an extended channel mount, a filter-regulator unit, a quick-acting valve, and oil-resistant hose with male fittings. Timers & Solenoids may also be used--Contact HVI for assistance with this type of Installation.

HVT SERIES TURBINE VIBRATORS MUST ALWAYS BE INSTALLED WITH FILTER-REGULATOR UNITS TO ENSURE CLEAN, DRY SUPPLY AIR.



The Vibrator should be installed no more than 15 feet from the on/off valve and filter-regulator unit. The NPT size of the Filter-Regulator Unit and On/Off Valve should match the NPT of the vibrator air inlet in single or dual unit installations. When more than two vibrators will be controlled using the same valve and filter-regulator unit, consult HVI for air component sizing recommendations.

MOUNTING

The location and rigidity of the mount is extremely important. A weak mount will not distribute vibration properly, and can cause vibrator failure and/or bin wall fatigue.

In most cases, installations on bins, hoppers and pipes require the use of an extended mounting channel in addition to a mounting plate.

If an extended channel will be used, the channel should be 2/3 the length of the bin wall, and should be stitch welded to the bin wall with the vibrator mounting plate stitch welded to the extended channel.

Mounting plates or extended channels should be stitch welded - never use continuous welds - to the structure to prevent small cracks in the welds from detaching the plate from the structure. If solid welds are used, a small crack will quickly travel the length of the weld, causing more damage to the structure, and possibly allowing the entire mount to detach from your structure.

Check the chart below to make sure that your structure has at least the minimum wall thickness for safely mounting your HVT Series Turbine Vibrator.

MODEL	MIN. WALL THICKNESS
HVT-150-1 HVT-150-2 HVT-150-3	1/16"
HVT-280-1 HVT-280-2 HVT-280-3	1/8"
HVT-320-1 HVT-320-2 HVT-320-3	3/16"

If you do not have at least the minimum wall thickness for your HVT Model, consult HVI for mounting recommendations.