

# Inertial Vibrators

***NEW...Only from Eriez.***

## *Electromagnetic*

*Quiet and efficient drive units to improve flow of materials in bins, hoppers and chutes.*

**E**riez' new inertial vibrators provide a quiet, yet powerful solution to material feeding applications.

At last, a bin vibrator with the advantages of electromagnetics AND the advantages of a rotary!

These vibrators, with their totally enclosed patented magnetic drive, can be used for applications ranging from the tiniest hopper to huge bunkers with reinforced heavy steel plate and liners. Powerful positive drive in both directions, applies a superior action to bin walls...and results in more economical, more efficient flow of materials.

Simple AC controls operate the vibrators with "watch-like" precision. In addition, you get all the features that for years have made Eriez Feeders the leaders in quality and dependability.

### **FEATURES**

- No expensive air required
- No bearings to fail
- Quiet!! 65-72 decibels @ 3 feet (914 mm)
- No wear parts
- Available in 1800 & 3600 cycle



## Choosing the Correct Hi-Vi Bin Vibrator

Although other factors are taken into consideration, the size of vibrator to be used is mainly determined by the hopper wall thickness and the volume or size of the hopper. Generally speaking (see diagrams on back page), the best location for optimum movement of most materials is from one-fourth to one-third of the way up a wall having the least slope, that is, the least angle to the horizontal.

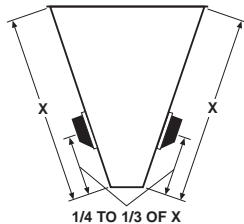
It is recommended that the vibrator be mounted on an open panel, provided such panel has the inherent stiffness needed to obtain maximum output from the vibrator. If such stiffness is lacking, the panel can be stiffened by the addition of structural members such as a channel. Upon request, the Eriez' Engineering Department will advise on the proper method of stiffening any particular hopper for best transfer of vibratory energy.

The use of a control box provides an adjustment to compensate for variations in the contents of a bin or hopper.

Eriez Vibrators are normally rated for ambient temperatures up to 130°F (55 °C), but higher rated units are available on order.

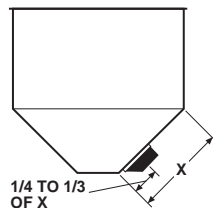
## Rectangular Bins with Hopper Bottom

Mount same as for Rectangular Hopper. Possibly a larger unit will be required because of superimposed load. This style container is easily vibrated, for the hopper portion is generally smaller for a corresponding quantity of material than where all of the material is held in a hopper portion.



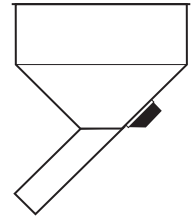
## Rectangular Hoppers

Mount same as above and on the center line. One vibrator will vibrate 3 sides of a hopper this shape, to a degree which is generally sufficient. If additional vibration is required, a second unit can be mounted on the opposite side at a different height.



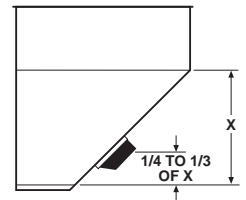
## Hoppers with Chute Discharge

Mount the vibrator at the very bottom of this type hopper, next to bottom side of sloping chute discharge. This will vibrate the hopper as well as the discharge chute.



## Hoppers with Vertical Sides

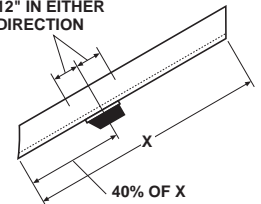
The vibrator should be mounted on the sloping portion of the hopper, opposite the vertical side. It should be 1/4 to 1/3 or less from discharge to top of sloping side (area).



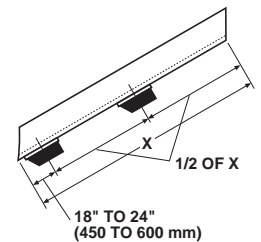
## Inclined Chutes

Inclined chutes not steep enough to produce an easy flow of material, are benefited by the use of vibrators. One vibrator usually will handle a 10 to 14-foot (3000 to 4250 mm) length. The unit should be mounted below the center, so the lower portion receives the most vibration. When mounting, make provision for slight adjustment in both directions, for many times a slight position change will greatly enhance vibration efficiency.

PROVISION FOR MOVING VIBRATOR 12" IN EITHER DIRECTION



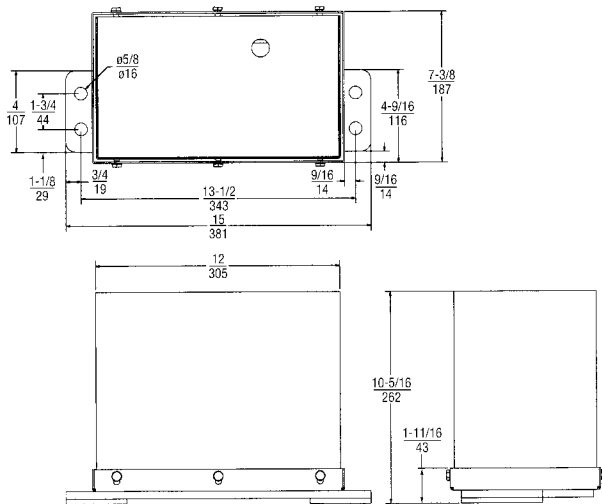
On tubular chutes, the vibrator should be mounted to a flat or channel-shaped plate which, in turn, is clamped to the chute by means of "U" bolts.



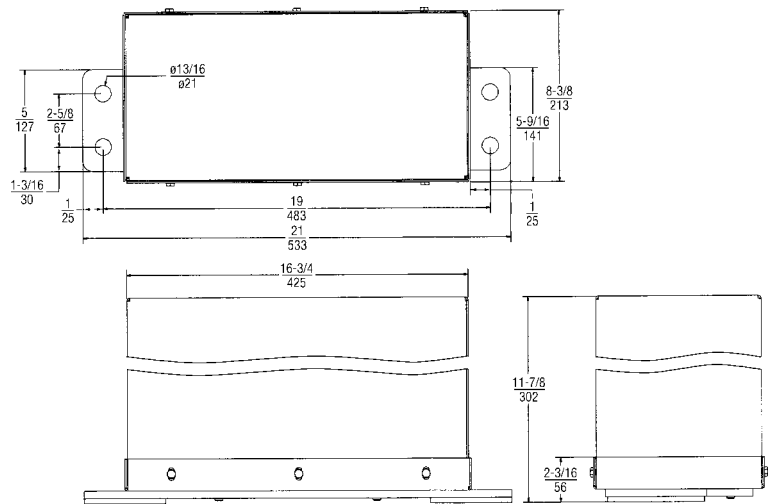
When using more than one vibrator on long chutes, mount the first one within 2-feet (600 mm) of the discharge, the next halfway between first vibrator and upper end of chute.

## SPECIFICATIONS

### Model I36



### Model I56

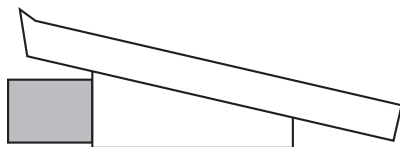


INCHES  
MILLIMETERS

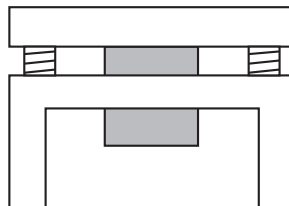
MODEL	CYCLE	FORCE		MAXIMUM MATERIAL		WALL THICKNESS		MOUNTING CHANNEL	
		cpm	lbs	kg	lbs	kg	in	mm	W in X L in
I3626/18	1800	284	130	2838	1059	14 ga	1.9	4 X 24	101 X 607
I3633/18	1800	284	130	2838	1059	3/16	4.8	4 X 24	101 X 607
I3626/36	3600	455	203	4554	1700	3/16	4.8	4 X 30	101 X 762
I3633/36	3600	455	203	4554	1700	1/4	6.4	4 X 30	101 X 762
I5650/18	1800	576	230	5762	2151	3/16	4.8	5 X 36	127 X 914
I5667/18	1800	576	230	5762	2151	1/4	6.4	5 X 36	127 X 914
I5650/36	3600	576	230	5762	2151	3/16	4.8	5 X 42	127 X 1067
	3600	--	--	9246	3451	1/4	6.4	5 X 42	127 X 1067

\*Maximum material in sloped portion of hopper  
 1800 Cycle units for light (less than 25 #ft<sup>3</sup>) and fine (less than 100 mesn) products  
 3600 Cycle units for heavier (30-100 #ft<sup>3</sup>) and coarser (over 100 mesn) materials

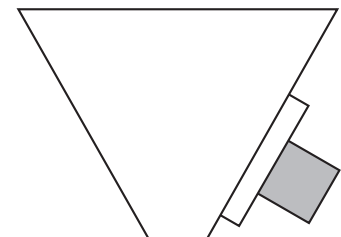
## MULTIPLE USES



On Pan Feeder



On Vibrating Tables



On Hoppers

## CONTROLS



No rectifier is needed with Eriez Hi-Vi electromagnetic vibrators; just wire into any AC line. Controls are available to provide a precise amount of vibration, if required. They are of the potentiometer, variable auto-transformer or solid state type. Their function is to vary the applied line voltage from zero to 100%, hence the vibration from zero to maximum.

Stepless control assures the exact amount of vibration for difficult applications. There is no surge of uncontrolled vibration, but rather a smooth increase from zero to maximum.

The controls for Eriez' "M" Series units for dusty locations are built in totally enclosed J. I. C. electrical housings designed to provide protection against oil, coolant, water, dust, etc.



**World Authority in Advanced Technology for Magnetic, Vibratory and Metal Detection Applications**

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