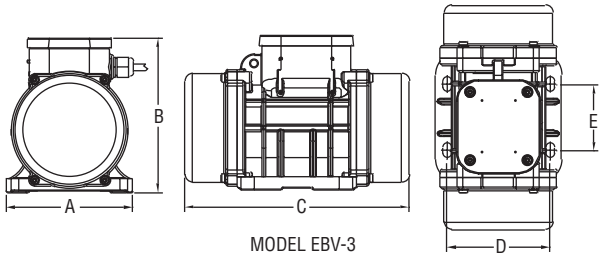
Series EBV Electric Bin Vibrator

Specifications - Installation and Operating Instructions



MODEL EBV-3

Dimensions - inches (mm)					
Model	A	B	C	D	E
EBV-1	5-1/8 (130)	5-23/64 (136)	8-5/16 (211)	4-11/64 (106)	2-43/64 (68)
EBV-2	5-1/8 (130)	5-23/64 (136)	8-5/16 (211)	4-11/64 (106)	2-43/64 (68)
EBV-3	5-1/8 (130)	6-17/64 (159)	9-3/32 (231)	4-11/64 (106)	2-43/64 (68)
EBV-4	6-7/64 (155)	6-23/32 (170)	10-23/64 (263)	4-7/16 (113)	5-1/8 (130)

The Series EBV Electric Bin Vibrator incorporates adjustable force features without creating irritating noise. The low amperage draw at 120V reduces power consumption and makes the vibrators useable in any application. The EBV eliminates drawbacks associated with non-adjustable constant force units. The conventional fix force units are sized with narrow operating limits and may not move material from bins or pack material in containers if the moisture content changes. The adjustable force feature increases application flexibility; reducing equipment downtime and labor expense. The EBV is capable of running continuously at 100% force output without overheating or mechanical damage.

SPECIFICATIONS
Power Requirements: 120 VAC.
Power Consumption: See model chart.
Temperature Limits: -4 to 104°F (-20 to 40°C).
Enclosure: Aluminum.
Enclosure Rating: IP 66 (NEMA 4X).
Noise Level: 20 dB.
Electrical Connection: Electrical junction box.
Rotational Speed: 3600 RPM.
Weight: See model chart.
Approvals: CE.

	Max Power		Centrifugal Force		Current	Weight
Model	Kw	Hp	Kg	Lb	Max Amps	Lb
EBV-1	0.09	0.12	71	156.5	1.03	9.3
EBV-2	0.11	0.15	95	209.4	1.3	10.1
EBV-3	0.21	0.28	189	416.7	2.62	15.4
EBV-4	0.28	0.38	323	712.1	3.43	21.6

Installation

1. Before installation, especially if the apparatus has been stored in the warehouse, remove the side covers from the weights and check to make sure the shaft turns freely.

2. The EBV electric vibrator can be installed in any position. Fix the electric vibrator on a rigid area to avoid induced vibrations causing breakage or cracks; if this is not possible, use plates and ribbing for reinforcement.

3. The mounting surface must be level (max 0.25 mm/ max 0.01 in) so that the vibrator feet rest uniformly and perfectly in contact with the mounting surface, to avoid internal stresses which can lead to breakage of the vibrator feet.

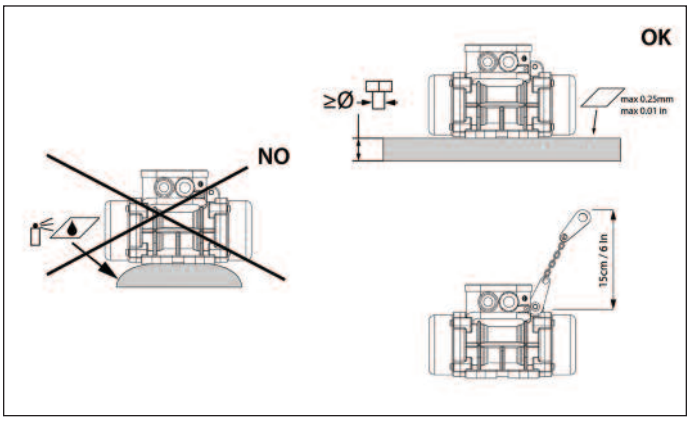


Figure 1

4. To mount the electric vibrator, use bolts, nuts and flat washers.

5. Remember that most breakdowns are due to incorrect mounting.

6. Anchor the electric vibrator using a chain with a length and cross section suitable for supporting the electric vibrator with a maximum fall of 15 cm (6 inches), in case of accidental detachment.

VIBRATION FORCE CALCULATION

For Bins and Hoppers:

Calculate the weight of the material in the transition (sloping part) of the bin or hopper (not the straight wall above the transition). Divide by 10 and the sum left is the force needed on the vibrator. For example: if your calculated weight is 1000 lb divided by 10 equals 100, you will need a vibrator producing 100 lb of force.

For Screens:

1.When vibrating the screen, multiply the weight of material on the screen by two and the sum is the force needed on the vibrator.

2. Mounting the vibrator on the screen-frame and vibrating both material and frame, multiply total weight of material and frame by three to get vibrator force needed.

Vibrating Packing Tables:

Multiply total weight of material and carton by two to get force needed.

Centrifugal Force Adjustment

1. Remove the side covers.

2. Unscrew the screws used for locking the movable weight.

3. Bring the eccentric weights to the required value indicated in the following drawings.

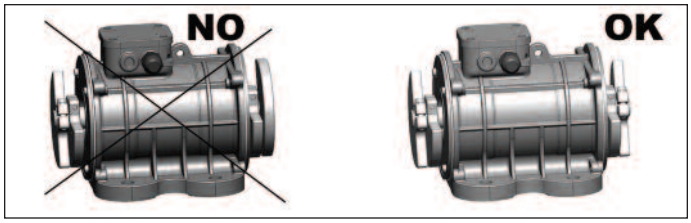


Figure 2

4. It is necessary to make sure the weights are adjusted in the same direction at both ends.

5. Once the weights are brought to the required value, tighten the bolts to hold the weights in place.

6. After carrying out the operation on both sides, refit the covers using the same screws and washers taking care to make sure the gaskets are fitted correctly in their seats.

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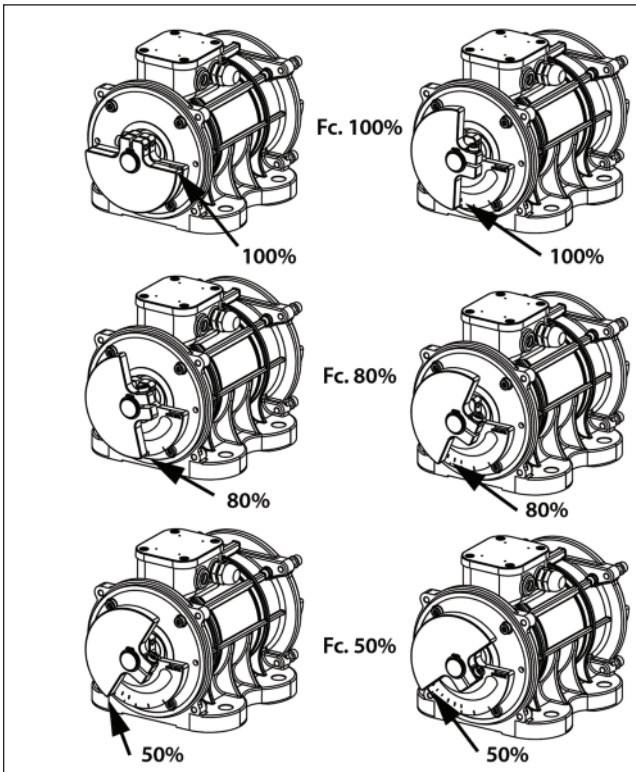
Weight Adjustment



		MVE 60/3	MVE 60/36 MVE 160/2	MVE 100/3	MVE 100/36 MVE 220/2
		50 Hz	60 Hz	50 Hz	60 Hz
N°		16		24	
TURNED BLADE ON EACH SIDE MASSE GIRATE PER LATO GEDREHTE LAMELLENGEW. AN JEDER SEITE MASSES TOURNEE SUR CHAQUE FACE LÂMINA POSICIONADA EM CADA PARTE CUCHILLA GIRADA A CADA PARTE ОБОРОТЫЛОПОСТЕЙ НА КАЖДОЙ СТОРОНЕ	0	FC.100%	/	FC.100%	/
	1	FC.75%	FC.100%	FC.83.3%	/
	2	FC.50%	FC.66%	FC.66.6%	FC.100%
	3	FC.25%	FC.33%	FC.49.9%	FC.75%
	4	/	/	FC.33.2%	FC.50%
	5	/	/	FC.16.5%	FC.25%

Figure 3

Wiring
The power supply mains must be in conformity to the safety standards established by the competent authorities of the place in which the operations are carried out.

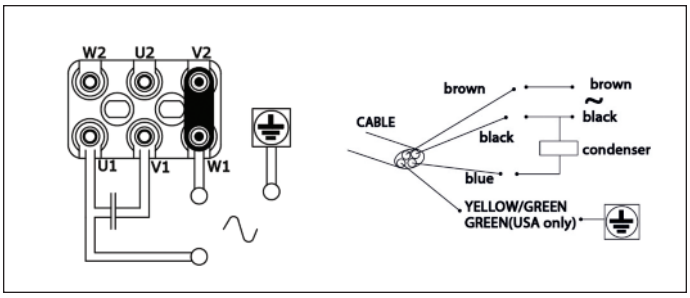
1. Check to make sure the mains voltage is the same as that indicated on the electric vibrator rating plate.

2. Disconnect the line before carrying out maintenance or while adjusting the weights. For single phase electric vibrators, wait for at least one minute before opening the junction box to allow the capacitor to discharge. All repairs or replacement of components must be carried out exclusively by special personnel.

3. For single phase electric vibrators, it is necessary to check the capacitor to make sure it corresponds to the rating plate.

4. Use a flexible power cable with 4 wires, one of which is yellow/green (green only for the U.S.A.) used for grounding. While connecting the electric vibrator to the line, the yellow-green ground wire must always be longer to prevent it breaking first, in the event of yielding.

5. Wires used to power the vibrators should be at least 4 mm².



MAINTENANCE
Before carrying out any maintenance or cleaning on the machine, make sure the conditions are safe.

Cleaning
1. Dust deposits must never exceed a thickness of 5 mm.

2. Use only a damp cloth to remove the dust.

3. Frequency of cleaning depends on the type of product handled by the appliance in which the electric vibrator is inserted.

4. Do not use high pressure water jets on the electric vibrator.

The EBV is not field serviceable and should be returned if any repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a returns good authorization number before shipping.

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