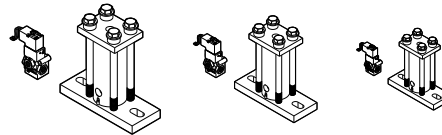




VIBCO INSTRUCTION MANUAL

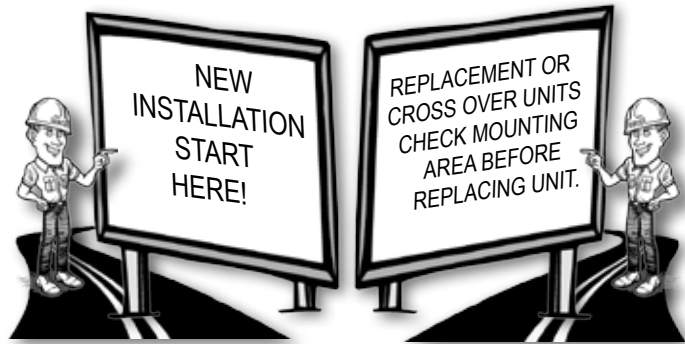


LI PISTON IMPACTORS

WARNING: Failure to read and follow these installation instructions and safety precautions could result in personal injury, equipment damage, shortened service life or unsatisfactory equipment performance. All information in this document is vital to the proper installation and operation of the equipment. It is important that all personnel who will be coming in contact with this product thoroughly read and understand this manual.

1 START

THANK YOU FOR CHOOSING A VIBCO VIBRATOR!



2 MOUNTING INSTRUCTIONS CHECKLIST

! The warranty is void if impactor is not properly installed. During installation follow and check off the following steps and your impactor should provide you with years of trouble-free service.

- Determine length of channel iron.
- Select thickness of mounting plate & method of mounting.
- STITCH** weld mounting plate to channel iron.
- Determine impactor placement on bin.
- STITCH** weld channel iron to bin.
- Place impactor on mounting plate.
- Check the mounting plate for warping. Secure firmly.
- Install safety chain or wire.
- Connect pneumatics.
- FILL OUT WARRANTY CARD!!!!**



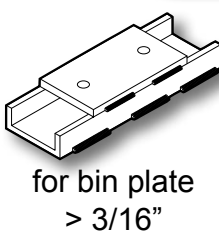
ADDITIONAL DETAILS AVAILABLE ONLINE AT www.vibco.com

3 MOUNTING CHANNEL & PLATES

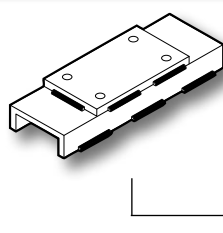
YOU MUST STITCH WELD MOUNTING PLATE OR CHANNEL! NEVER CONTINUOUSLY WELD. STOP WELDS 1" FROM ENDS TO PREVENT CRACKING.

MOUNTING PLATE & CHANNEL		
PISTON MODEL	PART NUMBER	CHANNEL WIDTH
LI-10-I	PM-2	3"
LI-16-I	PM-4	4"
LI-24-I	PM-5	6"

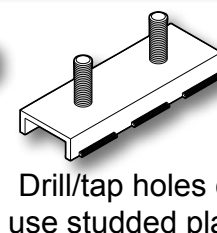
CORRECT MOUNTING PLATES	
PISTON DIAMETER	PLATE THICKNESS
1-1/4"	1/4" plate
2" & 3"	1/2" plate



for bin plate > 3/16"



for bin plate < 3/16"



Drill/tap holes or use studded plate

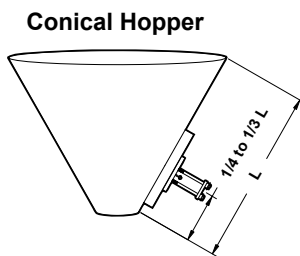
NEVER PLACE IMPACTOR DIRECTLY ON SKIN OF BIN OR HOPPER!

4 MOUNTING HARDWARE

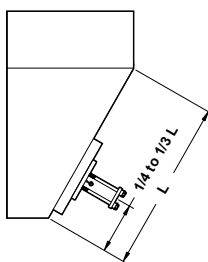
For coarse materials: mount vibrator 1/3 of the distance from the discharge opening to the top of the sloped portion of the bin.

For fine materials: mount vibrator 1/4 of the distance from the discharge to the top of the sloped portion of the bin.

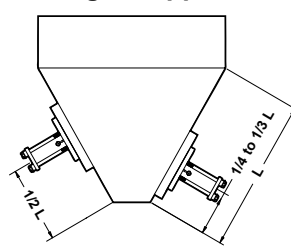
For large bins: mount two vibrators one on each sloping wall 180° opposite each other for best flow results.



1/2 Rectangular Hopper



Two Pistons on Single Hopper

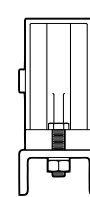


FOR ALTERNATE MOUNTS

refer to full detail instruction manual online at www.vibco.com or call 800-633-0032

NOTE: NEVER PLACE VIBRATOR DIRECTLY ON SKIN OF BIN OR HOPPER!

5 MOUNTING & BOLTING



! **Damage to the bin and the vibrator can occur if not mounted securely.**

800-633-0032 for Mounting Plates & Brackets, Spare & Replacement Parts and 24/7 Technical Support

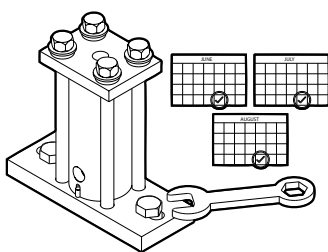
6 MOUNTING & BOLTING cont.

Be sure mounting surfaces are smooth and free from debris before bolting unit.

Make sure the vibrator is secured tightly. Retighten after the first 10-15 minutes of operation & be sure to check periodically to maintain proper tightness

The immediate area around the vibrator should be clear of any other equipment or structural parts and pieces. Unit may fail prematurely if the body rests or rubs against another object.

GRADE 5 BOLT SIZE	MAX TORQUE ft-lbs
1/4"	9
5/16"	18
3/8"	32
1/2"	78
5/8"	160



7 RESTRAINT



ALWAYS INSTALL SAFETY CHAIN

Mount one end to the vibrator & the other to the hopper or bin **above** the vibrator. **NEVER ATTACH CHAIN TO THE MOUNTING PLATE**

8 TECHNICAL DATA

TO DETERMINE CORRECT AIR HOSE SIZE**

PISTON DIAMETER	MIN AIR HOSE DIA	MIN FRL* THREAD DIA
1-1/4"	3/8"	3/8"
2" & 3"	1/2"	1/2"

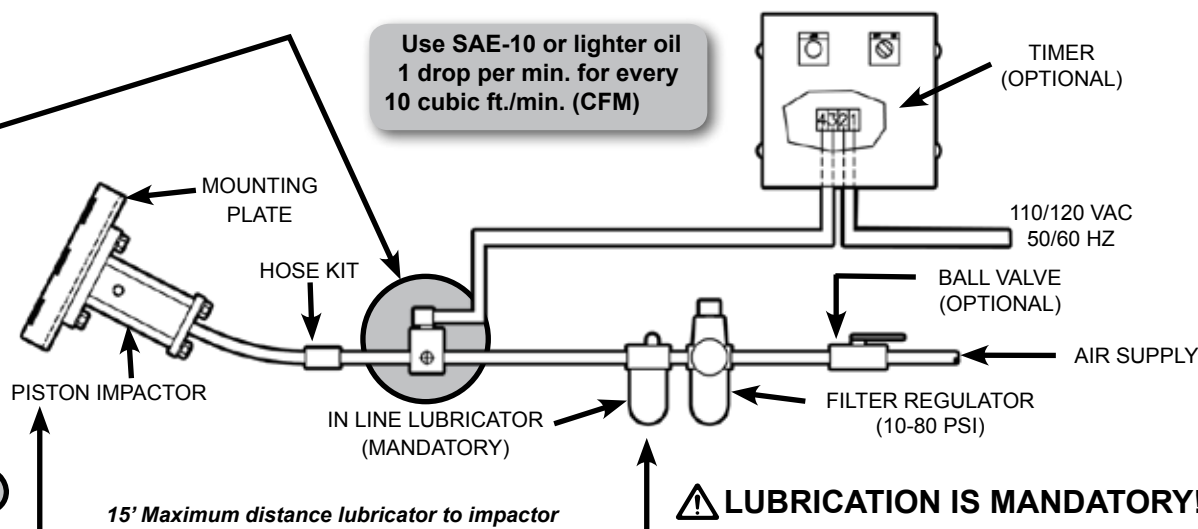
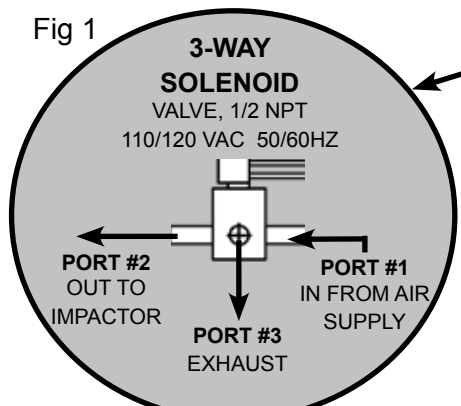
**these specs for installation of single unit; for multiple units, adjust to maintain CFM

MODEL	PISTON SIZE	KINETIC ENERGY @ 80 PSI	MAX PULSE RATE PER MINUTE	CONSUMPTION @ 80 PSI	
				Cu/Ft PER STROKE	Cu/Ft PER MINUTE MAX
LI-10-1-1/4	1-1/4"	14 Ft. Lbs.	200	0.014	2.8
LI-16-2	2"	48 Ft. Lbs.	160	0.019	3.04
LI-24-3	3"	98 Ft. Lbs.	110	0.049	5.39

9 PNEUMATIC HOOK-UP

Fig 1

NAME	PART #
HOSE KIT	LI-H
TIMER	LI-T
BALL VALVE	86124
LUBRICATOR	26124
3-WAY SOLENOID	LI-S
FILTER REGULATOR	46124

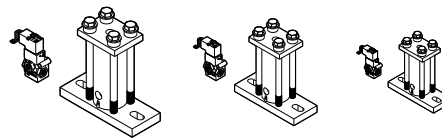


5' Maximum distance between solenoid and impactor

15' Maximum distance lubricator to impactor



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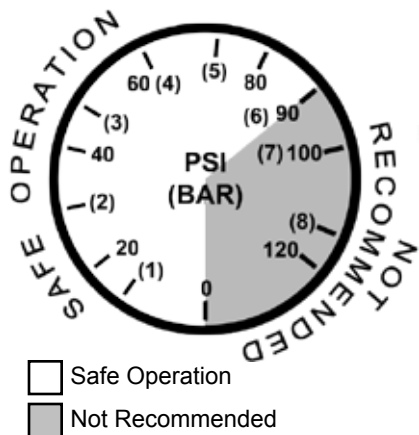
LI PISTON IMPACTORS

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10 OPERATION

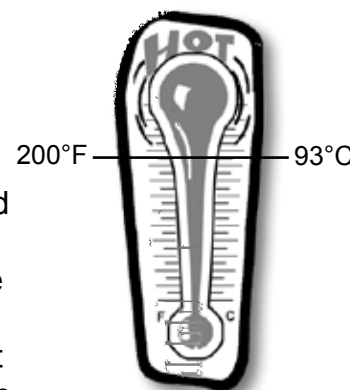
Maximum Air Pressure

Operating pressure should **not** exceed **90 psi** unless specially constructed for higher pressure standards by **VIBCO**.



Maximum Temperature

Operating and ambient temperature should not exceed **200°F (93°C)**. High temperature units are available, contact VIBCO for specific part number.



Required Lubrication

Lubrication is **REQUIRED** for the operation of pneumatic piston vibrators. The lubricator should be set to deliver 1 drop for every 10 CFM the vibrator requires. Use SAE-10 oil or lighter.

800-633-0032 • vibrators@vibco.com • www.vibco.com

11 TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Inconsistent Start	Dirt causes periodic sticking	Clean thoroughly, install port protectors & air line filters
	Duty cycle too fast for pressure to dissipate	Decrease duty cycle
	Broken spring	Replace spring
	Solenoid valve too far from impactor	Relocate solenoid valve within 5' of piston
	Impactor worn	Consult VIBCO
Does Not Start	Insufficient air	Increase air pressure to 40 psi minimum & confirm cfm using the chart in panel 8
	Broken spring	Change spring or change angle of mounting so the piston travels at 30° off horizontal, eliminating the need for spring
	Solenoid valve too far from impactor	Relocate solenoid valve within 5' of piston
	Obstruction in air line	Test by disconnecting air line at impactor, turn on air, then replace line
	High ambient heat can expand piston	Consult VIBCO about High Temp Units
	Congeaed sludge in piston housing	1. Put approx. 1 tbsp. Kerosene into inlet port, run for 10-15 seconds 2. Clean thoroughly, rod out piston air passage
	Impactor worn	Consult VIBCO
Insufficient Force	Air pressure is set to low	Check accessories & connections for leaks, increase air pressure, confirm cfm with chart in panel 8
	Impactor too small	Use larger model
	Impactor worn	Consult VIBCO
Mounting Bolt Breakage	Air pressure set to high	Reduce to a maximum of 80 psi
	Incorrect size & type of bolts	Replace with grade #5 bolt, NF, shank of bolt equal to mounting hole size
	Bolts not tight	Tighten to recommended torque reference chart in section 6
	Irregular mounting surface	Inspect for cracks around the mounting area & repair as needed

800-633-0032 for Mounting Plates & Brackets, Spare & Replacement Parts and 24/7 Technical Support

Warranty

All warranty claims must be submitted to VIBCO for approval prior to any repairs being done. Failure to do so will void any and all warranty coverage. All repairs will be done at the VIBCO factory.

Errors, Shortages & Complaints

Complaints concerning goods received or errors should be made at once. Claims must be made within five days after receipt of goods. Clerical errors are subject to correction. Damage during shipping must be reported to the carrier, not VIBCO.

Returning Parts **

Parts should not be returned to VIBCO without prior authorization. Call VIBCO's customer service department at 800-633-0032 (800-465-9709 in Canada) for a Return Goods Authorization (RGA) number. A return authorization will be emailed or faxed to you. Use this as your packing slip. Return shipping must be prepaid. Material returned may be subject to a 10% restocking fee. All returned shipments should clearly display your name, address and original invoice number to ensure proper credit.

** Orders for custom equipment built to customer's specifications are not returnable.

Product Changes

VIBCO reserves the right to make changes in pattern, design or materials when deemed necessary, without prior notice or obligation to make corresponding changes in previous models. To be sure of exact mounting dimensions, it is recommended that you obtain a certified dimensional drawing from the factory.

Ordering Spare Parts

Parts can be ordered through authorized distributors or from VIBCO's Spare Parts Department. The following data should be provided when placing your spare parts order:
From label: Model number of unit.
From spare parts list: Reference number, part number, description & quantity required.
Shipping instructions: Specify shipping point and method of shipping.

For custom mounting applications or any other questions:

800-633-0032

or

vibrators@vibco.com



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