

# Pneumatic Piston

---

Mounting Instructions • Operating Instructions • Technical Data  
Parts List • Troubleshooting

---



We're The Vibrator Guys.™

**Corporate HQ & Factory:**

75 Stilson Road Wyoming, RI 02898  
Phone: 800 633-0032 (401) 539-2392  
Fax: (401) 539-2584  
E-mail: [vibrators@vibco.com](mailto:vibrators@vibco.com)  
Website: [www.vibco.com](http://www.vibco.com)

**Canada:**

2215 Dunwin Drive  
Mississauga, ONT L5L 1X1  
Phone: 800 465-9709 (905) 828-4191  
Fax: (905) 828-5015

Thank you for choosing VIBCO, Inc. for your vibration needs. You are now the owner of the finest pneumatic piston vibrator available today, backed by complete manufacturer confidence in its quality and dependability. For reference, please complete the information below about your new VIBCO vibrator.

Model Number: \_\_\_\_\_  
 Date of Purchase: \_\_\_\_\_

<b>TABLE OF CONTENTS</b>
--------------------------

Safety Instructions & How It Works .....	3
Mounting Instructions: Checklist & Notes .....	4-5
Mounting Suggestions by Bin Type .....	6-9
Custom Mounting .....	9
Vibrator Installation and Pneumatic Hook-up .....	10-13
Operating Instructions .....	12
Troubleshooting .....	14
<b>Technical Data and Dimensions</b>	
Model 50,55, & LI .....	15
Model 10, 30, 40, 70, 80 .....	16
Model 42,44.....	17
<b>Parts List and Breakdown</b>	
Model 50 .....	18
Model 55 .....	19
Model 10 .....	20
Model 30 .....	21
Model 40 .....	22
Model 42 .....	23
Model 44-3.....	24
Model 44-3L.....	25
Model 70.....	26
Model 80 .....	27
Warranty & General Information .....	28

# SAFETY INSTRUCTIONS



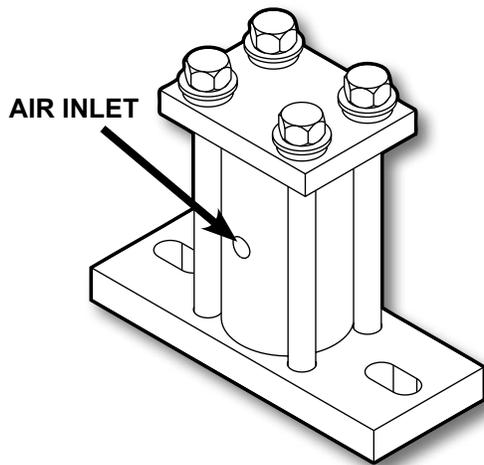
**WARNING:** Failure to read and follow these installation instructions and safety precautions could result in personal injury, equipment damage, shortened service life or unsatisfactory equipment performance. All information in this document is vital to the proper installation and operation of the equipment.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

# HOW IT WORKS

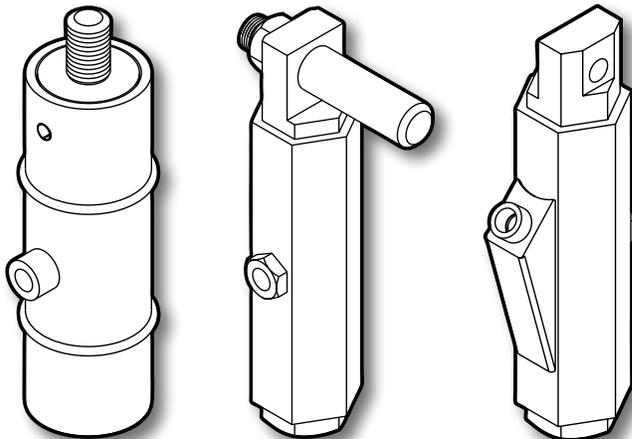
Your new VIBCO pneumatic piston vibrator is constructed of fatigue-resistant steel alloys which are heat treated to guarantee long service under high stress conditions. The flat base plate provides an efficient transmission of the shock energy to the system which is developed by the reciprocating piston. The repetitive hammer action of the vibrator on the apparatus to which it is attached is controllable by regulating the incoming applied air pressure.

## Optional Features

VIBCO pneumatic piston vibrators are available in many different configurations. Your piston vibrator can be custom made to include features that will accommodate high impact, low noise, high amplitude, and high temperature requirements. Some models (-EM suffix) can be equipped with an exhaust manifold to lead off exhausting air. Contact VIBCO if you would like more information.



Thank you for choosing VIBCO Vibrators.



PHONE: 1-800-633-0032  
WWW.VIBCO.COM

FAX: 1-401-539-2584  
VIBRATORS@VIBCO.COM

## MOUNTING INSTRUCTIONS CHECKLIST



THE WARRANTY IS VOID IF VIBRATOR IS NOT PROPERLY INSTALLED. DURING INSTALLATION FOLLOW AND CHECK OFF THE FOLLOWING STEPS AND YOUR VIBRATOR SHOULD PROVIDE YOU WITH YEARS OF TROUBLE-FREE SERVICE.

- 1. Select thickness of vibrator mounting plate and method of mounting.
- 2. Determine the length of the channel iron.
- 3. Weld mounting plate to channel iron.
- 4. Determine where vibrator should be placed on the bin.
- 5. Weld channel iron to bin.
- 6. Place vibrator on mounting plate. It is important that you check the mounting plate for any warping. Follow bolt tightening procedure.
- 7. Install safety chain or wire.
- 8. Connect pneumatics.



## NOTES ABOUT INSTALLATION

*If you have any questions consult the Mounting Instructions section of this manual or call VIBCO Technical Support at (800) 633-0032.*

### **Mounting Plate**

For force up to 100 lbs. use a 1/4 in. thick plate, 100 to 500 lbs. use a 3/8 in. to 1/2 in. thick plate and over 500 lbs. use a 1/2 in. thick plate.

### **Mounting Channel**

*Never place the vibrator directly onto the skin of the bin.* It should be mounted to either a plate or a piece of channel iron that has been **stitch welded** to the bin. The proper mounting method is to use either 3 in. or 4 in. channel iron. This will help to stiffen the structure to be vibrated as well as spread the vibration over a larger surface, increasing the overall efficiency and diminishing the possibilities of fatigue cracks in the bin material.

The length of the channel iron is determined by the thickness of the bin plate. For vibrators with a force up to 500 lbs. and a bin plate under 3/16 in., the 4 in. channel iron should extend 18 to 36 inches on both sides of the vibrator. For smaller vibrators with a force of up to 100 lbs. and a bin thickness of 3/16 in. to 1/4 in., the length of the 3 in. channel iron should extend 3 to 4 inches on both sides of the vibrator. For vibrators with a force between 100 and 500 lbs. and a bin thickness of 3/8 in. to 1/2 in., the length of the 3 in. or 4 in. channel iron should extend 6 to 8 inches on both sides of the vibrator.

### **Welding Mounting Plate to Channel Iron**

Weld the mounting plate to the middle of the channel iron. If the bin plate is 3/16 in. or less, weld the mounting plate to the back of the channel iron (see Figure 3 or 4). If the bin plate is over 3/16 in. weld the mounting plate to the legs of the channel iron (see Figure 1). Drill and tap holes or use studded plate (see Figure 1 or 5). Make sure the mounting plate does not warp or distort. If this occurs, straighten, replace it or shim vibrator.

**PHONE: 1-800-633-0032**  
**WWW.VIBCO.COM**

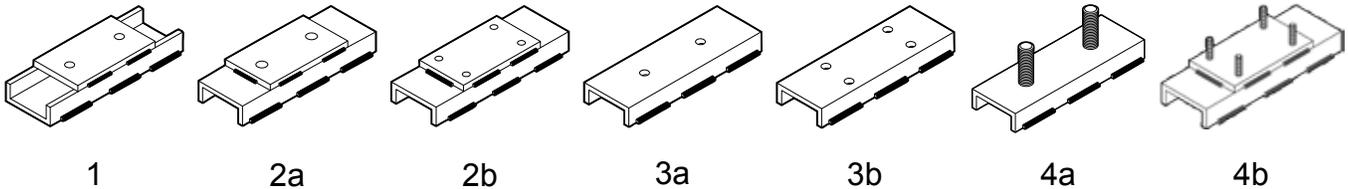
**FAX: 1-401-539-2584**  
**VIBRATORS@VIBCO.COM**

## DIFFERENT SUGGESTIONS FOR MOUNTING CHANNEL

- 1) Mounting plate welded to legs of channel iron.
- 2) Mounting channel with mounting plate and holes drilled or tapped thru.
- 3) 3 or 4 in. channel iron with holes drilled thru and nuts welded on back side, or just holes drilled thru.
- 4) Weld studs to back of channel.



**ALWAYS STOP WELDS 1 IN. FROM ENDS TO PREVENT HEAT CONCENTRATION AND BIN CRACK. SKIP WELD CHANNEL: WELD 2 TO 3 INCHES, SKIP 1 TO 2 INCHES AND REPEAT UNTIL SECURELY MOUNTED.**



### Placement

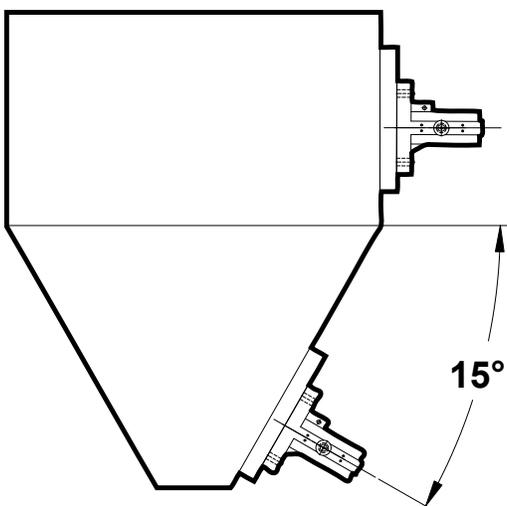
For coarse materials the vibrator should be mounted approximately 1/3 of the distance from the discharge opening to the top of the sloped portion of the bin. For fine grain materials place the vibrator approximately 1/4 of the same distance (see different mounting suggestions on the following pages).

### Welding Channel Iron to Bin

Where possible, the mounting plate or the channel iron should be placed 1/3 to 1/4 of the distance from the discharge opening to the top of the sloped portion of the bin. Tact weld channel iron in place, then weld intermittent welds 3 in. to 6 in. long with 3 in. between them along the entire length of the channel. Stop weld a minimum of 1 in. from the ends. It is important that you do not weld the ends of the channel iron. The heat concentration when welding the ends could cause premature fatigue cracks.

### Installing Safety Chain

It is important to install a safety chain or wire in order to prevent the vibrator from falling and potentially causing injury if it comes loose from its mount.



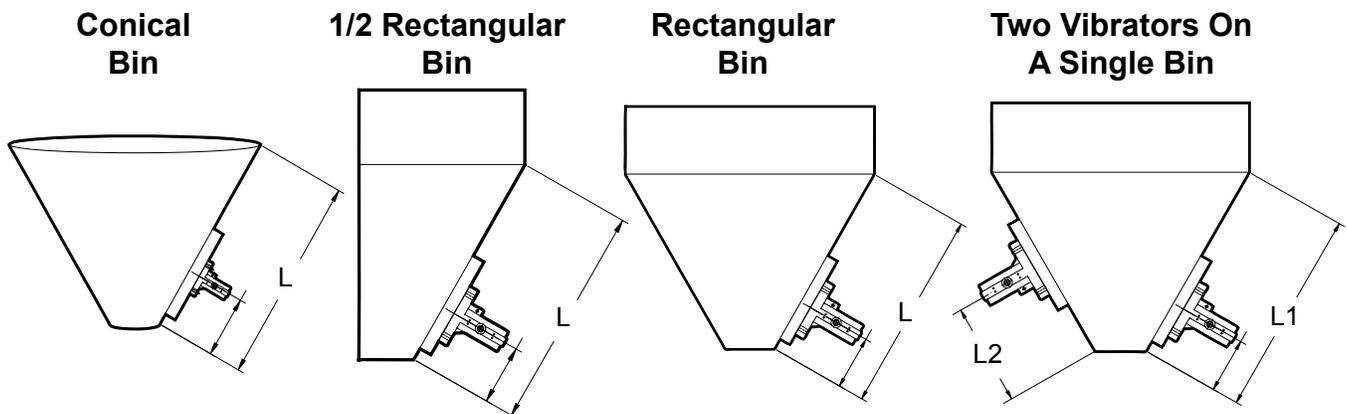
Standard piston models should be mounted at least 15 degrees from horizontal. Anything less than 15 degrees requires a spring(-SP) model.



To ensure a fast start of the piston everytime. Models 1-1/4" and smaller come stock with a spring.

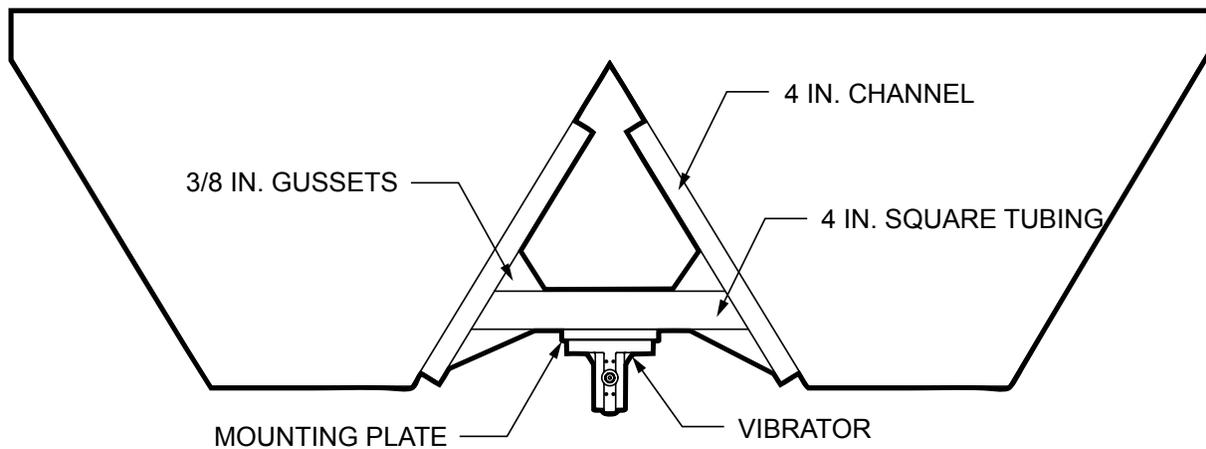


**MOUNTING SUGGESTIONS**

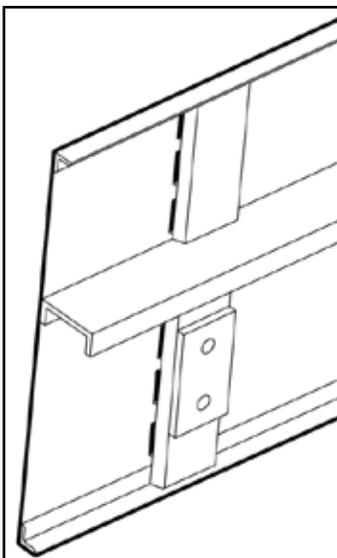


*For course material mount vibrator 1/3 of the length (L) from the discharge opening. For fine material mount vibrator 1/4 of the length (L) from the discharge opening. For large bins mount two units 180° opposite 1/4 of the length (L1) and 1/2 of the length (L2) from the discharge opening.*

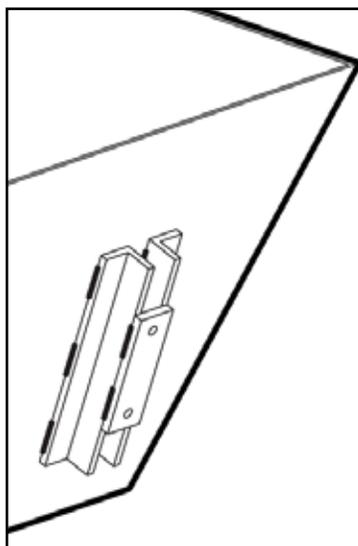
**One Vibrator For A Double Bin**



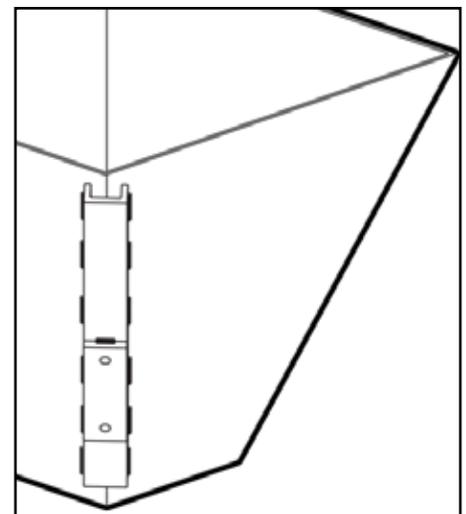
**Bin With Stiffeners**



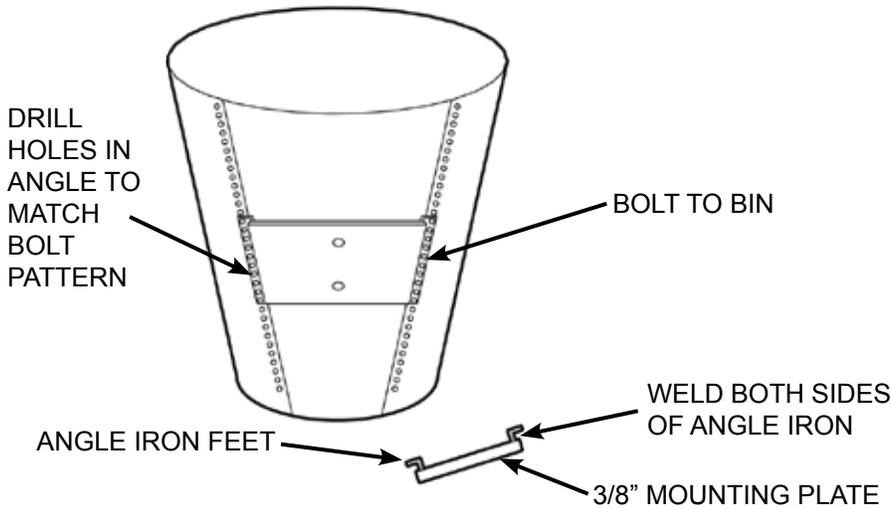
**Angle Iron Stiffeners Instead of Channel Iron**



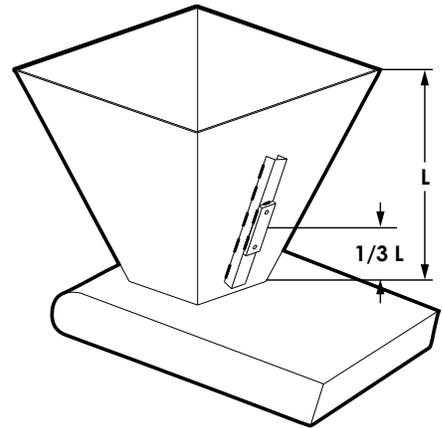
**Thin Skinned Bin Corner Mount**



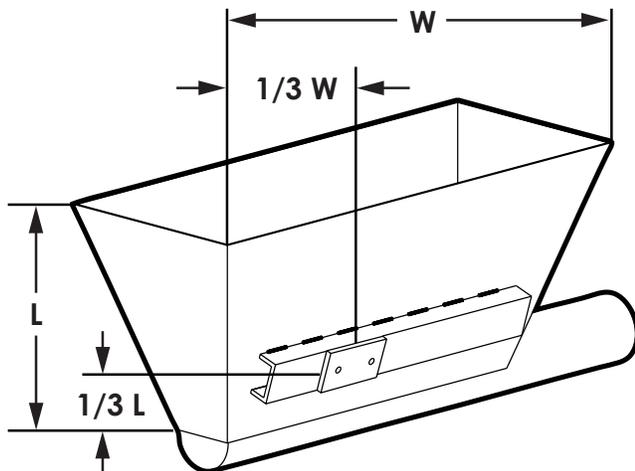
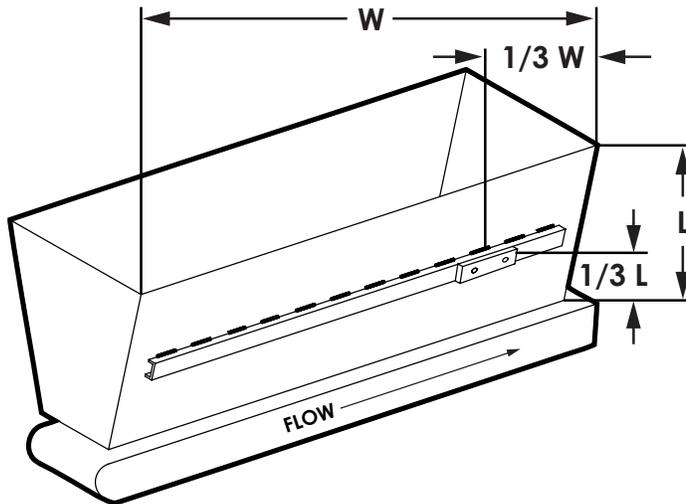
### Sheet Metal Bin



### Belt Conveyor and Standard Bin

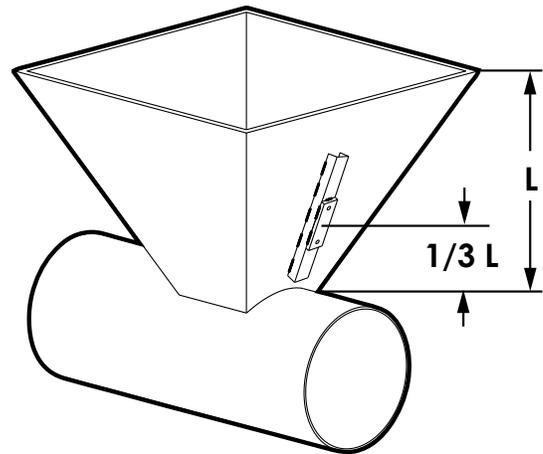


### Long Bin



### Belt Conveyors

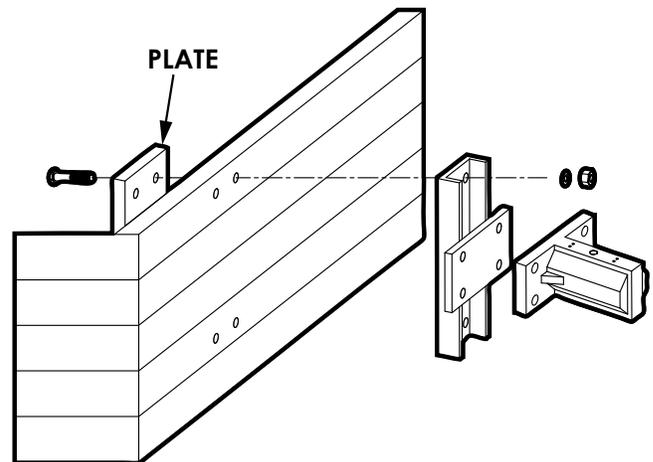
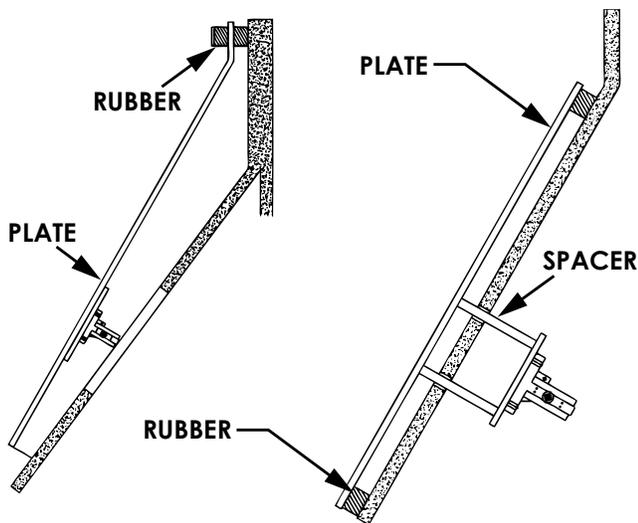
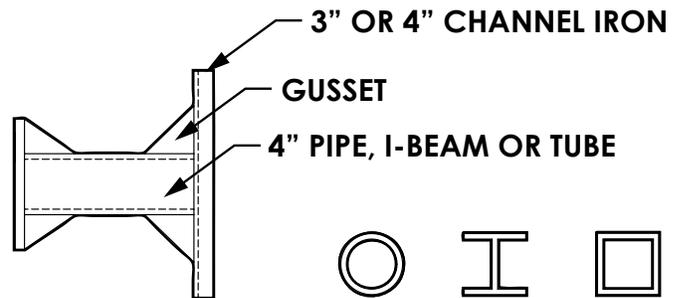
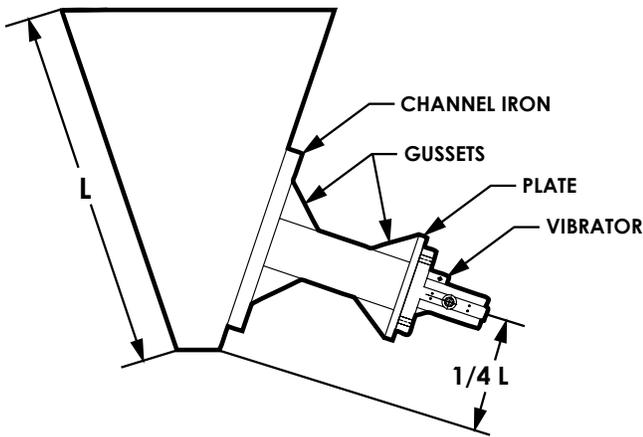
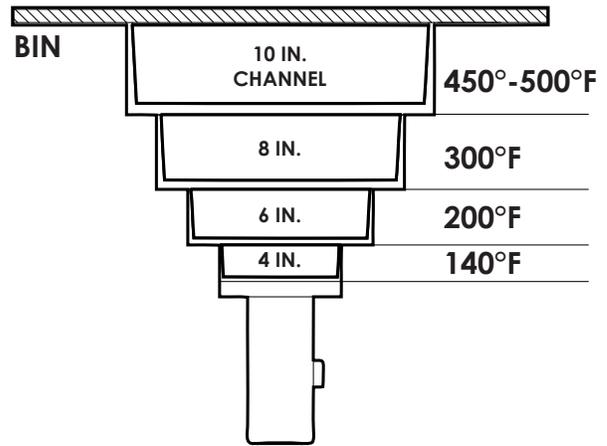
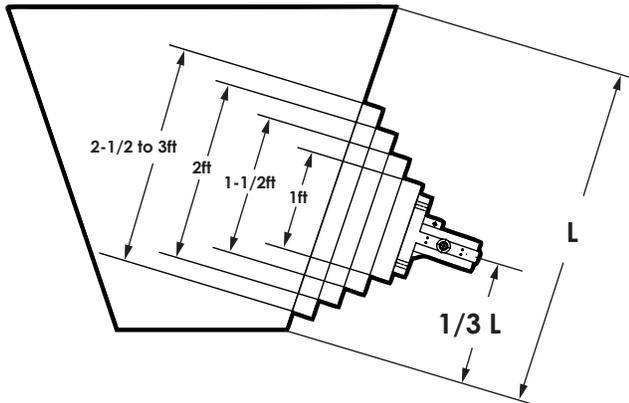
Belt conveyor feeds from the front. Vibrator should be placed  $1/3$  from the front. If 2 vibrators are used, place second one directly opposite  $1/3$  from the back. Do not operate back vibrator until bin is empty in front and the front vibrator has turned off. For more details, consult VIBCO.



### Screw Conveyors

Feeds from back. Vibrator should be placed  $1/3$  from the back. If 2 vibrators are used, place 2nd one directly opposite  $1/3$  from the front. Do not operate front vibrator until bin is empty in back and the back vibrator has turned off. For more details, consult VIBCO.

**Heat Mounts for Insulated Bins Containing High Temperature Materials:** When materials in the bin have a temperature over 150°F, it is advisable to use a “heat” mount to prevent excessive heat from reaching the vibrator and causing overload or bearing failure. Also, ask for “high” temperature grease in vibrator bearing. Consult VIBCO for vibrator size.



**Concrete Bin:** Mount steel plate on inside of bin so that the vibrator sits 1/3 up bin side. Isolate the plate from the concrete by using rubber vibration shock absorbers. Consult VIBCO for detailed drawings.

**Wood Bin:** Use steel plate on inside and bolt to outside mounting channel.

**PHONE: 1-800-633-0032**  
**WWW.VIBCO.COM**

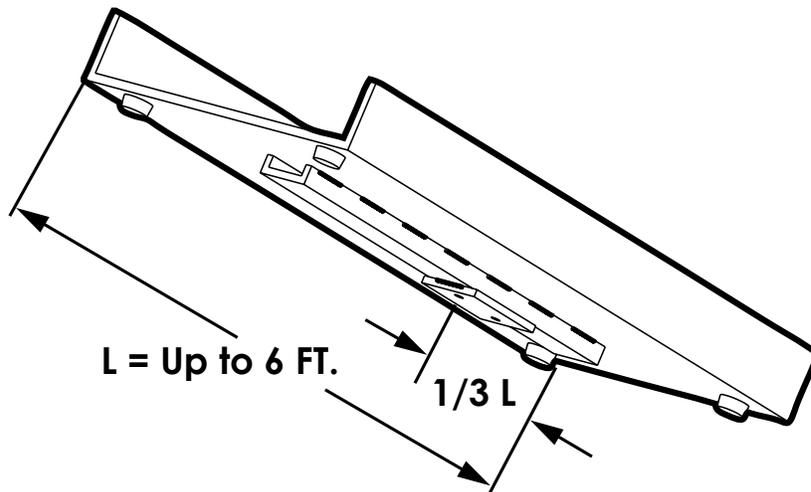
**FAX: 1-401-539-2584**  
**VIBRATORS@VIBCO.COM**

## CHUTES

In order to successfully move material in a chute, the “angle of repose” of the material has to be known. It can be found in most handbooks or can easily be measured by pouring a cup of the material on a table. The angle between the table and the cone the material makes is the “angle of repose”. To move the material in the chute, it should be inclined no less than 1/2 of the “angle of repose”. If this cannot be obtained, a feeder is necessary to move the material.

*For optimum performance follow these guidelines:*

- Force (impact) needed on vibrator is equal to weight of chute + vibrator + max material in chute.
- Chutes must have an inclination of at least  $10^\circ$  for vibrators to be able to move the material. If inclination is less the chute has to be made into a feeder. Contact VIBCO for selecting the proper size vibrator or ask for the bulletin covering chutes.
- Chutes up to 6 ft. are generally handled by one vibrator mounted approximately 1/3 from the discharge.
- On chutes over 6 ft. long, two vibrators are needed, one should be placed 18 - 24 inches from the discharge. The other approximately in the middle. Since chutes are very sensitive to vibration, provision should be made to move the lower vibrator 6 inches in either direction. This could mean the difference between moving the material or not moving it.



### CUSTOM MOUNTING APPLICATIONS

**For custom mounting applications**

**Call 1-800-633-0032**

**E-mail [vibrators@vibco.com](mailto:vibrators@vibco.com)**



**or**



**PHONE: 1-800-633-0032  
WWW.VIBCO.COM**

**FAX: 1-401-539-2584  
VIBRATORS@VIBCO.COM**

# VIBRATOR INSTALLATION

## Installation of the Vibrator

It is now time to put the VIBCO vibrator in place. Make sure that it is secured tightly. Retighten the bolts after the first 10 to 15 minutes of operation and check them periodically to maintain proper tightness (figures 1 and 2).



**DAMAGE TO THE BIN AND THE VIBRATOR CAN OCCUR IF NOT MOUNTED SECURELY.**

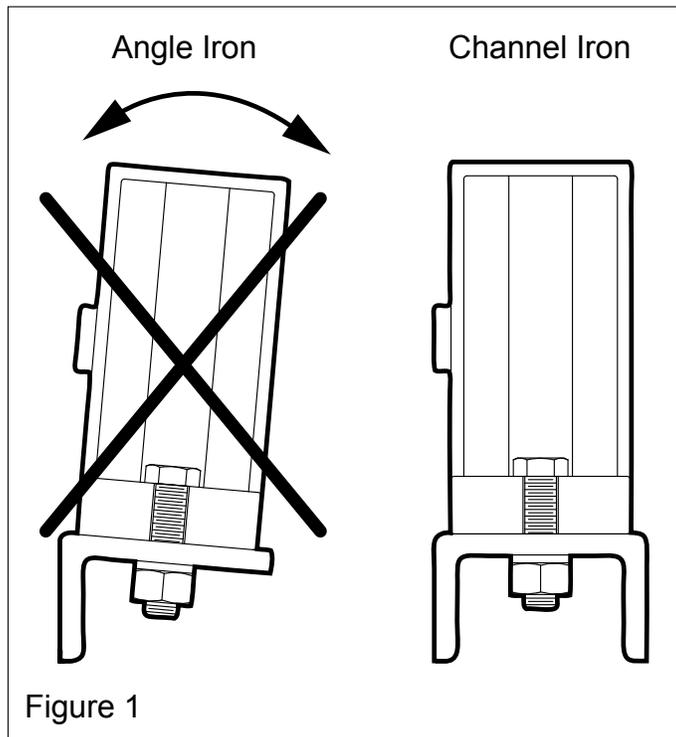


Figure 1

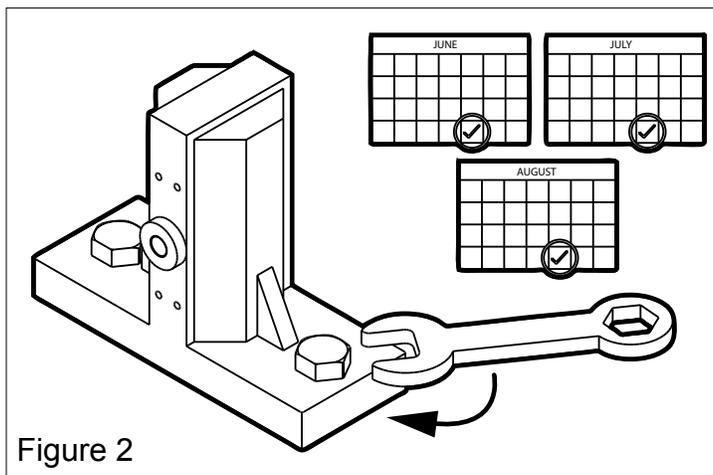


Figure 2

Remember:  
Check those  
bolts!



# PNEUMATIC HOOK-UP

## Air Line To Vibrator

The hose to the inlet port of the vibrator should have the same or larger hose I.D. as the inlet I.D. (pipe size) of the vibrator to minimize pressure loss from the compressor to the vibrator. Check the technical data section of this manual, and find the specifications that meet your model to ensure you have the correct sizes.

\* F=filter R=regulator L=lubricator

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

TO DETERMINE CORRECT AIR HOSE SIZE**			
PISTON DIAMETER	MIN AIR HOSE DIA	MIN FRL* THREAD DIA	CFM
5/8" to 1-1/4"	1/4"	1/4"	4 - 10
1-1/4" to 1-1/2"	3/8"	3/8"	11 - 20
2L" & UP	1/2"	1/2"	21 - 50

## Flow Valve

A simple flow control valve is recommended to allow "tuning" the vibrator to the desired force. The air flow determines the force and frequency of the vibrator. By throttling the air flow, you can "find" the desired material discharge rate. Watch for and avoid speeds (frequency) at which the binwall and the vibrator shake violently. An increase or decrease of air flow usually stops the excessive movement and will smooth out the operation, assuming the mount is rigid.

## Quick Opening Valves

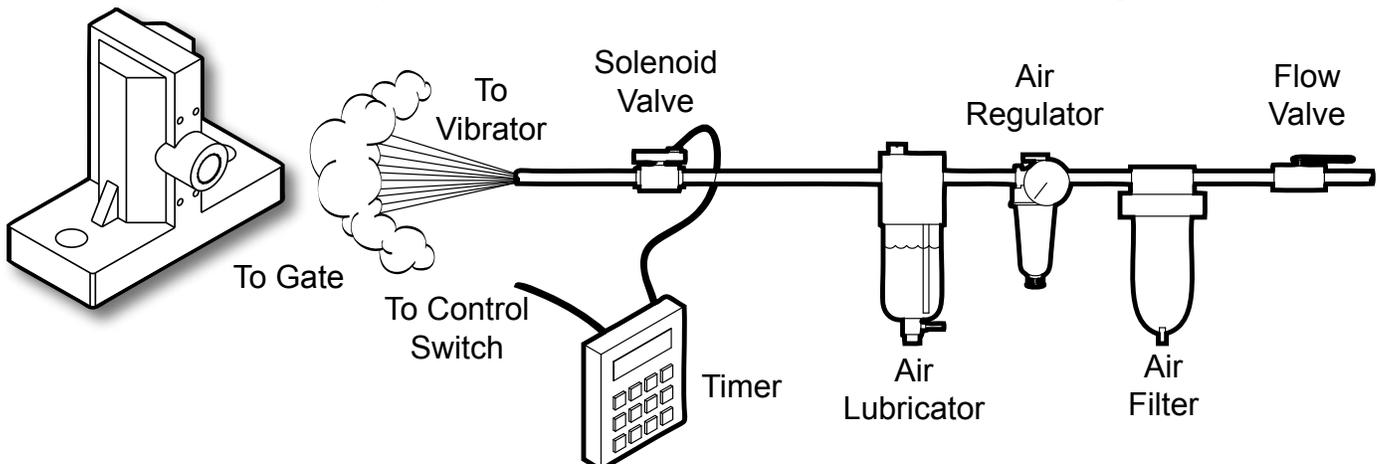
Recommended between the air regulator and the vibrator so the air enters the vibrator at full starting force even with low regulator valve settings. The only requirement is that you install the air regulator at least 12 inches away from the quick opening valve so that the air pressure between the two valves will build up enough to yield the necessary starting force. Solenoid (quick opening) valves are suggested for automatic operations. Automatic Timed Cycling is programmed with the timer usually directly connected to the bin or hopper gate switch. When the gate is opened the timed cycling system is activated.

## Air Filter

It is recommended that you use an air filter in the line. Clean air will prolong the life of any pneumatic vibrator. Dirty or moist air will harm the unit and impair it from operating at maximum efficiency and lowest air consumption.

## Air Lubricator

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



PHONE: 1-800-633-0032  
WWW.VIBCO.COM

FAX: 1-401-539-2584  
VIBRATORS@VIBCO.COM

### Maximum Air Pressure

The operating pressure of the vibrator should not exceed 80 psi unless specially constructed for higher pressure standards by VIBCO.

### Maximum Temperature

The operating temperature of the vibrator should not exceed 200°F (93°C). High temperature units are available.

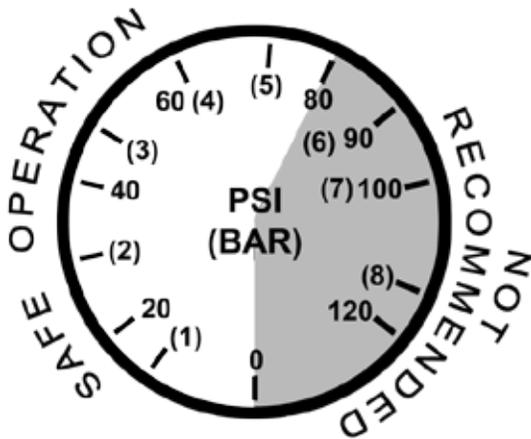


Figure 3

- Not Recommended
- Safe Operation

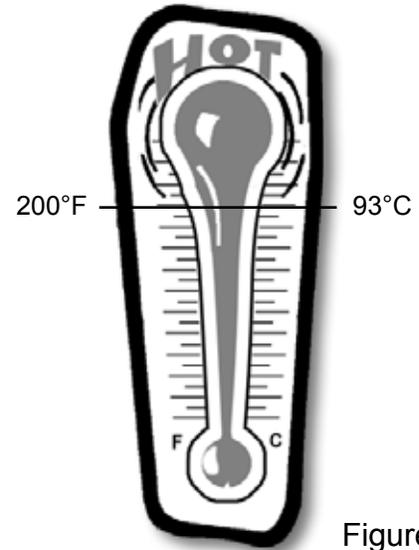


Figure 4

## IMPORTANT CONSIDERATIONS FOR LONG OPERATING LIFE

Contaminated air will shorten the life of the vibrator considerably, and will clog the critical clearance between the cylinder and the piston. It will also increase the wear of the piston, increasing the air consumption and diminishing vibrator efficiency.

Water in the air line will reduce the effectiveness of the lubrication necessary to make the unit operate and lubricate properly.

Water, dirt and air line rust at air pressures over 80 psi will create a sludge similar to grinding compound and will wear down the piston and the cylinder very quickly.

No oil in the air will cause the piston and cylinder walls to wear down rapidly, in some cases less than 8 hours.

In extremely cold applications it is advised to mix antifreeze or kerosene with the oil.

Inject a small quantity of kerosene directly into the vibrator occasionally in order to clean out any accumulated sludge.

Air pressure in excess of 80 psi will increase the velocity of the piston, diminishing the protective oil film and increasing the unit wear.

## OPERATING INSTALLATION

### **To Obtain Maximum Performance**

It is not necessary to operate the vibrator at its maximum capacity to obtain maximum performance. Air regulators, timers, etc. should be used to tune the vibrator for optimum performance and ensure longer life.

### **Continuous vs. Intermittent Operation**

For bulk material bin applications, the vibrator should be used to reduce the material friction and increase flow, not as a feeder. Once the friction of the particles is reduced, gravity flow takes over and the vibrator should then be turned off for several reasons:

#### **Economy**

Most vibrators are run 60% to 80% longer than they should. Short bursts of vibration are usually more effective than operating continuously. Experience has shown that for most applications, short bursts of 10 to 30 seconds for every 1 to 5 minutes of discharge are more effective and efficient.

#### **Life of the Unit**

The life of the vibrator will be determined by the length of operation and the cleanliness of the air supply.

#### **Guaranteed Success of the Application**

The vibrator can only furnish material to the discharge area. If more is furnished than conveyed, the remaining material will pack inside the bin. We suggest the vibrators only run when the bin gates or doors are open, or when material flow is needed.

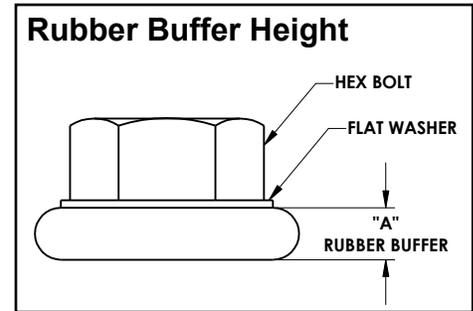
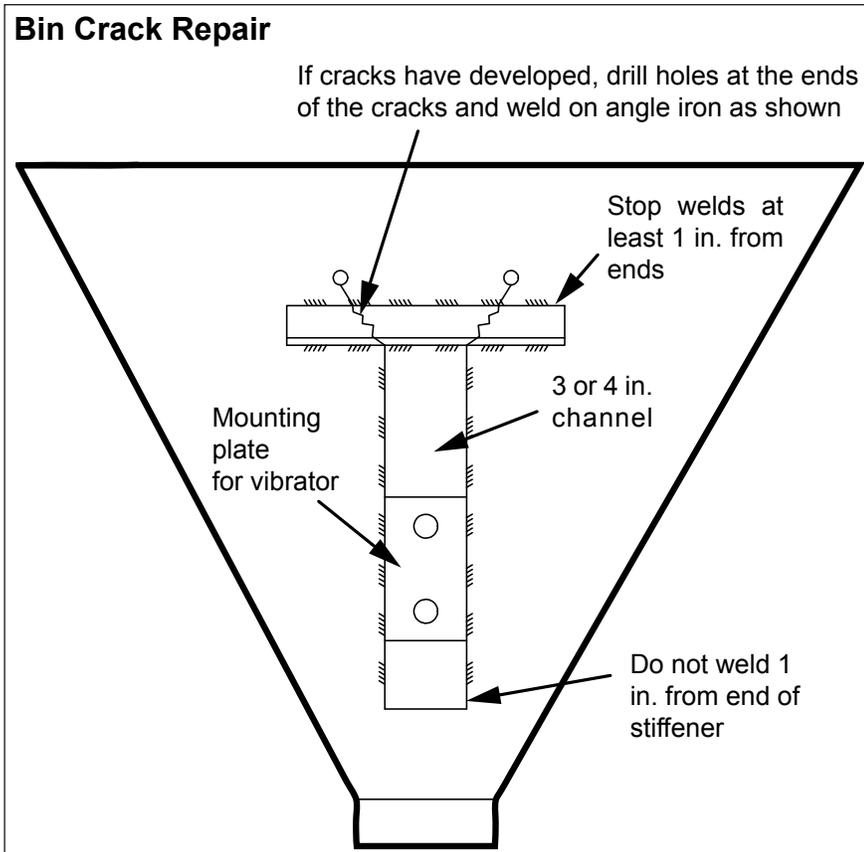
## TROUBLESHOOTING

Field repairs of piston vibrators are limited to replacing bolts, nuts, washers, o-rings and rubber shocks. Any other repairs should be done at VIBCO.

**Bolt breakage** is caused by:

- 1) Air pressure in excess of 80 psi.
- 2) Loose mounting bolts.
- 3) Excessive movement of vibrator on hopper or bin caused by:
  - A) Too flexible hopper or bin that cannot absorb vibration created.
  - B) Operation on empty hopper.
- 4) Dried up rubber buffers. Buffers are used to absorb shock energy and prolong bolt life. Through aging the buffers will take a "set" and deteriorate. It is advisable to replace all buffers and bolts at this time.

**Rubber buffers** should be replaced following these instructions. The bolts are not torqued but tightened to compress the rubber buffers to dimension "A" of the chart.



MODEL	"A" (IN.)
50-1	3/16
50-1-1/4	3/8
50-1-1/2	1/2
50-2	1/2
50-2L	5/8
50-3	11/16
50-3L	11/16

The improper welding of vibrator to bin stiffeners often results in fatigue cracks in the bin. This can be prevented by properly welding stiffeners to the bin side. A stiffener should be skip welded to the bin leaving 3 to 4 inches between welds. STOP WELDS 1 IN. FROM THE ENDS OF THE STIFFENER. This will prevent fatigue cracks that occur due to crystallization of the material. This crystallization is caused by the heat concentration that develops when the ends of the channel iron are welded. To stop the cracks, drill a hole at the end of each crack and weld on a piece of angle iron as shown above. When welding the angle iron STOP WELDS 1 IN. FROM THE ENDS.

# MODEL 50, 55, LI - DIMENSIONAL & TECHNICAL DATA

Model	A		B		C**		L		W		H		E		K		S		INLET	OUTLET
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Air Inlet	Air Inlet
50-1	3-1/2	89	-	-	1/2	13	4-1/2	115	2	51	4-9/16	116	5/8	16			3/16	5	1/8-NPT	-
50-1-1/4	4-1/2	114	-	-	1/2	13	6	153	2-1/2	64	6-3/8	165	7/8	22	2-7/8	74	3/8	6	1/4-NPT	-
50-1-1/2	6*	152	-	-	3/4	19	7-1/2	191	3	76	7-15/16	202	7/8	22			1/2	7	1/4-NPT	-
50-2	6*	152	-	-	3/4	19	9	229	3-1/2	89	7-15/16	202	7/8	22	3-9/16	91	1/2	6	1/4-NPT	-
50-2L	6*	152	-	-	3/4	19	9	229	3-1/2	89	9-3/8	239	7/8	22			5/8	6	1/4-NPT	-
50-2EP	6*	152	-	-	3/4	19	9	229	3-1/2	89	***	***	7/8	22			1/2	6	1/4-NPT	-
50-3	8-7/16	214	2-1/2	64	3/4	19	10-1/2	267	4-1/2	114	9-1/8	232	1	25	4-1/4	108	11/16	8	1/2-NPT	-
50-3L	8-7/16	214	2-1/2	64	3/4	19	10-1/2	267	4-1/2	114	13-1/2	343	1	25	6-1/4	159	11/16	8	1/2-NPT	-
55-1	3-1/2	89	-	-	1/2	13			2	51	3-7/8	98	5/8	16	2	51	-	-	1/4-NPT	-
55-1/4	4-1/2	114	-	-	1/2	13			2-1/2	64	5-5/8	143	7/8	22			-	-	1/4-NPT	-
55-1-1/2	7-1/2***	191	-	-	5/8	16			3-1/2	89	7-1/4	184	1-1/8	29			-	-	1/4-NPT	-
55-2	7-1/2***	191	-	-	5/8	16			3-13-16	97	7-1/4	184	1-1/8	29			-	-	1/4-NPT	-
55-3	7-3/4	197	3-1/4	83	7/8	22			5	127	9-7/16	240	1-1/8	29	4-11/16	120	-	-	3/8-NPT	-
LI-1-1/4	4-1/2	114	-	-	1/2	13			2-1/2	64	8-9/16	217	7/8	22			7/32	6	3/8-NPT	3/8-NPT
LI-2	6*	152	-	-	3/4	19			3-1/2	89	8-7/8	225	7/8	22			1/4	6	1/2-NPT	1/2-NPT
LI-3	8-7/16	214	2-1/2	64	3/4	19			4-1/2	114	13-1/2	343	1	25			5/16	8	1/2-NPT	1/2-NPT

\*Also available with 7-1/2 in.

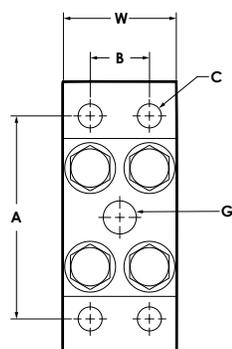
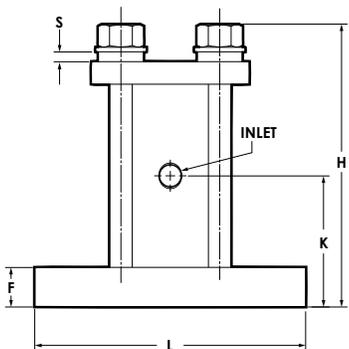
\*\*Bolt size

\*\*\*See 50-2EP diagram

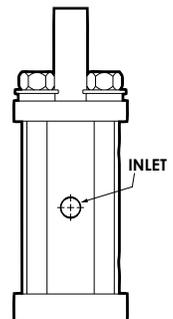
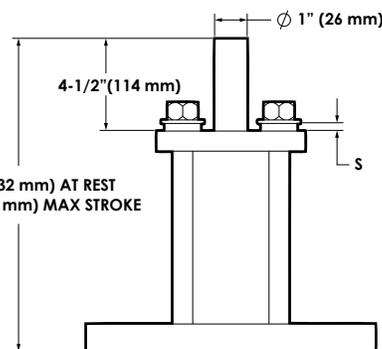
\*\*\*\*Will also fit 6 in. center holes (see dimension A)

NOTE: Dimensions are subject to change without notice.

## Model 50, 55 & LI



## Model 50-2EP



Piston Size	40 PSI (3 Bar)		60 PSI (4 Bar)		80 PSI (5 Bar)		Max lbs.
	CFM	VPM	CFM	VPM	CFM	VPM	Material in Bin (lbs)*
1S	3.5	3900	4	5400	5	6500	100-200
1	3.5	6500	4	9000	5	11000	200-400
1-1/4S	5	2400	7	3300	9	4200	200-400
1-1/4	5	4000	7	5500	9	7000	400-1000
1-1/2S	6.5	1700	9	2400	11	3200	400-1000
1-1/2	6.5	2800	9	4000	11	5200	1000-4000
2S	7.5	1950	12	2400	15	3000	1000-4000
2	7.5	3200	12	4000	15	5000	4000-10000
2LS	17	950	26	1200	31	1500	4000-10000
2L	17	1600	26	2000	31	2400	8000-20000
3S	18	1650	25	1950	30	2300	8000-20000
3	18	2700	25	3200	30	3800	10000-30000
3LS	31	800	42	900	51	1000	10000-30000
3L	31	1350	42	1500	51	1700	20000-70000

\* This data is furnished as a guide in estimating the sizes of piston vibrators for standard hopper shapes containing dry, granular materials of 50 lbs/cu. ft. minimum bulk density. For other sizes and densities, contact VIBCO.

PHONE: 1-800-633-0032  
WWW.VIBCO.COM

FAX: 1-401-539-2584  
VIBRATORS@VIBCO.COM

# Model 10, 30, 40, 70, and 80 DIMENSIONAL & TECHNICAL DATA

Model	A		B		C		W		H		S		INLET		OUTLET	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Air Inlet	Air Exhaust		
10-5/8	1/2	12	-	-	5/16	8	1-1/4	38	5-1/2	140	1-5/16	33	1/8-NPT	-		
10-3/4	1/2	12	-	-	3/8	10	1-5/8	41	5-1/2	140	1-3/8	35	1/8-NPT	-		
10-1	1/2	12	-	-	3/8	10	1-7/8	48	5-5/8	143	1-7/8	48	1/8-NPT	-		
10-1-1/4	11/16	18	-	-	1/2	12	2-5/16	59	9-1/4	235	2-5/16	59	1/4-NPT	-		
10-1-1/2	7/8	22	-	-	5/8	16	2-1/2	64	9-11/16	246	2-15/16	75	1/4-NPT	-		

30-5/8	1/2	12	5-7/16	136	5/16	8	1-1/4	32	6-5/16	160	1-5/16	33	1/8-NPT	-
30-3/4	1/2	12	5-7/16	136	3/8	10	1-5/8	41	6-5/16	160	1-5/16	33	1/8-NPT	-
30-1	1/2	12	5-7/16	136	3/8	10	1-7/8	48	6-9/16	167	1-7/8	48	1/8-NPT	-
30-1-1/4	11/16	17	9-1/8	228	1/2	12	2-5/16	59	10-1/2	267	2-5/16	59	1/8-NPT	-
30-1-1/2	7/8	22	9-1/2	241	5/8	16	2-7/8	73	11-3/8	289	2-15/16	73	1/4-NPT	-

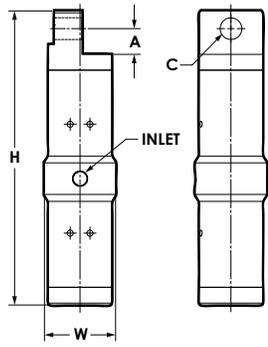
40-1	7/16	11	-	-	1/2	13	1-7/8	48	6-3/16	157	2-3/4	70	1/8-NPT	-
40-1-1/4	3/4	19	-	-	1	25	2-5/16	59	9-1/2	241	4-3/4	121	1/4-NPT	-

70-5/8	5/8	16	-	-	5/16-24	M8X1.25	1-1/4	32	4-3/4	120	1-5/16	33	1/8-NPT	1/4-NPT
70-3/4	5/8	16	-	-	3/8-24	M10X1.5	1-5/8	41	4-3/4	120	1-5/8	41	1/8-NPT	1/4-NPT
70-1	5/8	16	-	-	1/2-20	M12X1.75	1-7/8	48	4-3/4	120	1-7/8	48	1/8-NPT	1/4-NPT
70-1-1/4	5/8	16	-	-	1/2-20	M12X1.75	2-5/16	59	8	203	2-5/16	59	1/4-NPT	1/4-NPT

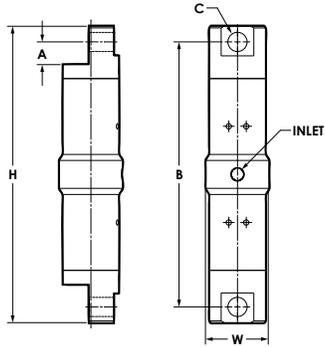
80-1	1	25	-	-	1/2-20	-	1-1/2	38	4-1/2	114	2-1/8	54	1/4-NPT	-
80-1-1/4	1-5/16	33	-	-	5/8-18	-	1-3/4	44	5-1/8	130	2-1/8	54	1/4-NPT	-
80-1-1/2	1-5/16	33	-	-	5/8-18	-	2	51	6	152	2-1/2	64	1/4-NPT	-
80-2	1-3/8	35	-	-	7/8-14	-	2-1/2	64	8	203	3-1/16	78	1/4-NPT	-

NOTE: Data and dimensions subject to change without notice

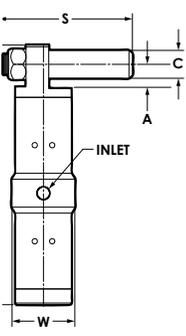
## Model 10



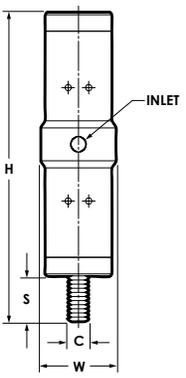
## Model 30



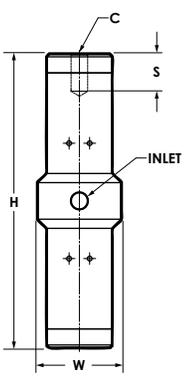
## Model 40



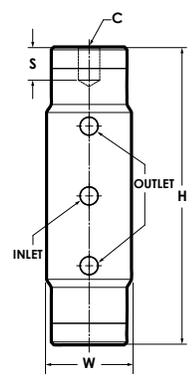
## Model 80



## Model 70



## Model 70EM



Piston Size	40 PSI (3 Bar)		60 PSI (4 Bar)		80 PSI (5 Bar)		Max lbs. Material in Bin (lbs)*
	CFM	VPM	CFM	VPM	CFM	VPM	
5/8	2.5	9500	3	12000	4.5	14500	Up to 100
3/4	3	7500	3.5	10500	5	13000	100-200
1S	3.5	3900	4	5400	5	6500	100-200
1	3.5	6500	4	9000	5	11000	200-400
1-1/4S	5	2400	7	3300	9	4200	200-400
1-1/4	5	4000	7	5500	9	7000	400-1000
1-1/2S	6.5	1700	9	2400	11	3200	400-1000
1-1/2	6.5	2800	9	4000	11	5200	1000-4000
2S	7.5	1950	12	2400	15	3000	1000-4000
2	7.5	3200	12	4000	15	5000	4000-10000

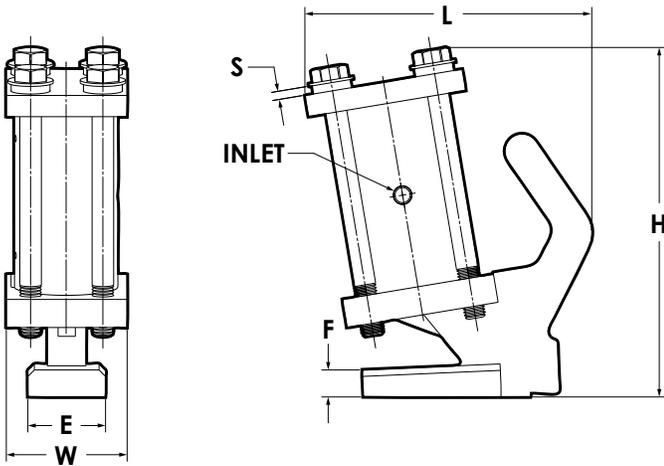
\* This data is furnished as a guide in estimating the sizes of piston vibrators for standard hopper shapes containing dry, granular materials of 50 lbs/cu. ft. minimum bulk density. For other sizes and densities, contact VIBCO.

# Model 42 DIMENSIONAL & TECHNICAL DATA

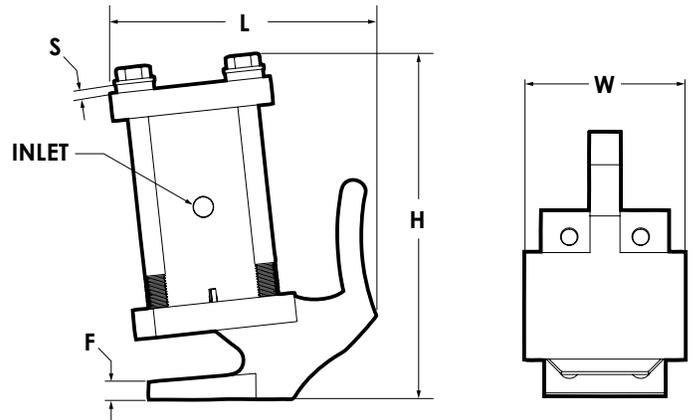
Model	L		W		H		E		F		S		INLET
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Air Inlet
42-2	8-5/16	211	3-1/2	89	10-1/8	257	2-1/4	58	3/4	20	9/32	8	1/4-NPT
42-3	8-9/16	217	6	152	13-9/16	344	2-1/4	58	3/4	20	11/16	17	1/2-NPT
44-3	10	254	6	152	13	330	-	-	3/4	20	11/16	17	1/2-NPT
44-3L	10	254	6	152	17-3/8	441	-	-	3/4	20	11/16	17	1/2-NPT

NOTE: Dimensions are subject to change without notice

## Model 42



## Model 44



Piston Size	40 PSI (3 Bar)		60 PSI (4 Bar)		80 PSI (5 Bar)		Max lbs.
	CFM	VPM	CFM	VPM	CFM	VPM	Material in Bin (lbs)*
42-2	7.5	3200	12	4000	15	5000	1000-4000
44-3	18	2700	25	3200	30	3800	8000-20000

\* This data is furnished as a guide in estimating the sizes of piston vibrators for standard hopper shapes containing dry, granular materials of 50 lbs/cu. ft. minimum bulk density. For other sizes and densities, contact VIBCO.

# Model 50 Air Piston Vibrators

ITEM NO	50-1	50-1S*	50-1-1/4	50-1-1/4S*	50-1-1/2
1	3/8-16X4HH	3/8-16X4HH	1/2-13X6HH	1/2-13X6HH	5/8-11X7-1/2HH
2	3/8SAE	3/8SAE	1/2SAE	1/2SAE	5/8SAE
3	100PS13	100PS13	125PS13	125PS13	200PS13
4	100PS14	100PS14	125PS11	125PS11	150PS11
5	100PS32	100PS32	125PS16	125PS16	150PS07
6	100PS22	100PS26	125PS52	125PS56	150PS02
7	124	124	222	222	327
8	100PS12	100PS12	125PS12	125PS12	150PS12
9	100PS25	100PS25	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH
10	100PS15	100PS15	125PS48	125PS48	150PS50

ITEM NO	50-1-1/2S*	50-2	50-2S*	50-2L*	50-2LS*	50-3
1	5/8-11X7-1/2HH	5/8-11X7-1/2HH	5/8-11X7-1/2HH	5/8-11X9HH	5/8-11X9HH	3/4-10X10HH
2	5/8SAE	5/8SAE	5/8SAE	5/8SAE	5/8SAE	3/4USSFW
3	200PS13	200PS13	200PS13	200PS13	200PS13	300PS13
4	150PS11	200PS11	200PS11	200PS11	200PS11	300PS11
5	150PS07	200PS07	200PS07	200PS07	200PS07	300PS07
6	150PS06	200PS02	200PS02	200PS25	200PS26	300PS02
7	327	330	330	330	330	339
8	150PS12	200PS12	200PS12	200PS24	200PS24	300PS12
9	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH
10	150PS50	200PS48	200PS48	200PS48	200PS48	300PS48

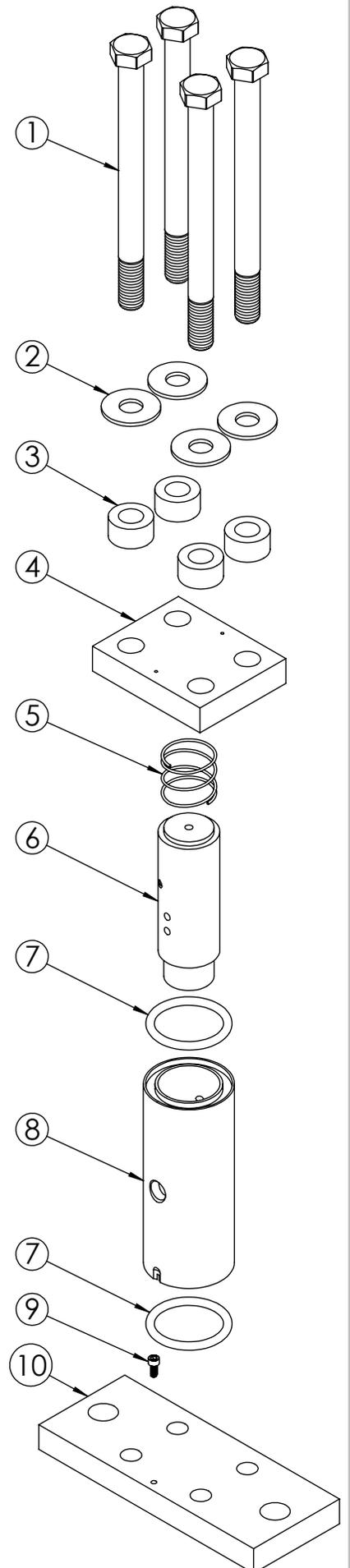
ITEM NO	50-3S*	50-3L*	50-3LS*	DESCRIPTION	QTY
1	3/4-10X10HH	3/4-10X13HH	3/4-10X13HH	HEX HEAD BOLT	4
2	3/4USSFW	3/4USSFW	3/4USSFW	FLAT WASHER	4
3	300PS13	300PS13	300PS13	RUBBER BUFFER	4
4	300PS11	300PS11	300PS11	TOP PLATE	1
5	300PS07	300PS07	300PS07	SPRING**	1
6	300PS06	300PS25	300PS26	PISTON	1
7	339	339	339	O-RING	2
8	300PS12	300PS15	300PS15	HOUSING	1
9	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH	SOCKET HEAD CAP SCREW	1
10	300PS48	300PS48	300PS48	BOTTOM PLATE	1

\* S - SILENT PISTON USED FOR THIS MODEL

L - LONG PISTON USED FOR THIS MODEL

\*\* SPRINGS USED ONLY ON 50-1, 50-1S, 50-1-1/4, AND 50-1-1/4S.

ALL OTHER VIBRATORS ONLY HAVE SPRINGS IN -SP MODELS.



# Model 55 Air Piston Vibrators

ITEM NO	55-1	55-1S*	55-1-1/4	55-1-1/4S*	55-1-1/2
1	100PS18	100PS18	125PS54	125PS54	150PS04
2	100PS32	100PS32	125PS16	125PS16	N/A
3	100PS22	100PS26	125PS52	125PS56	150PS02
4	117	117	121	121	218
5	100PS05	100PS05	125PS05	125PS05	150PS05
6	5000-100	5000-100	5000-125	5000-125	5000-150

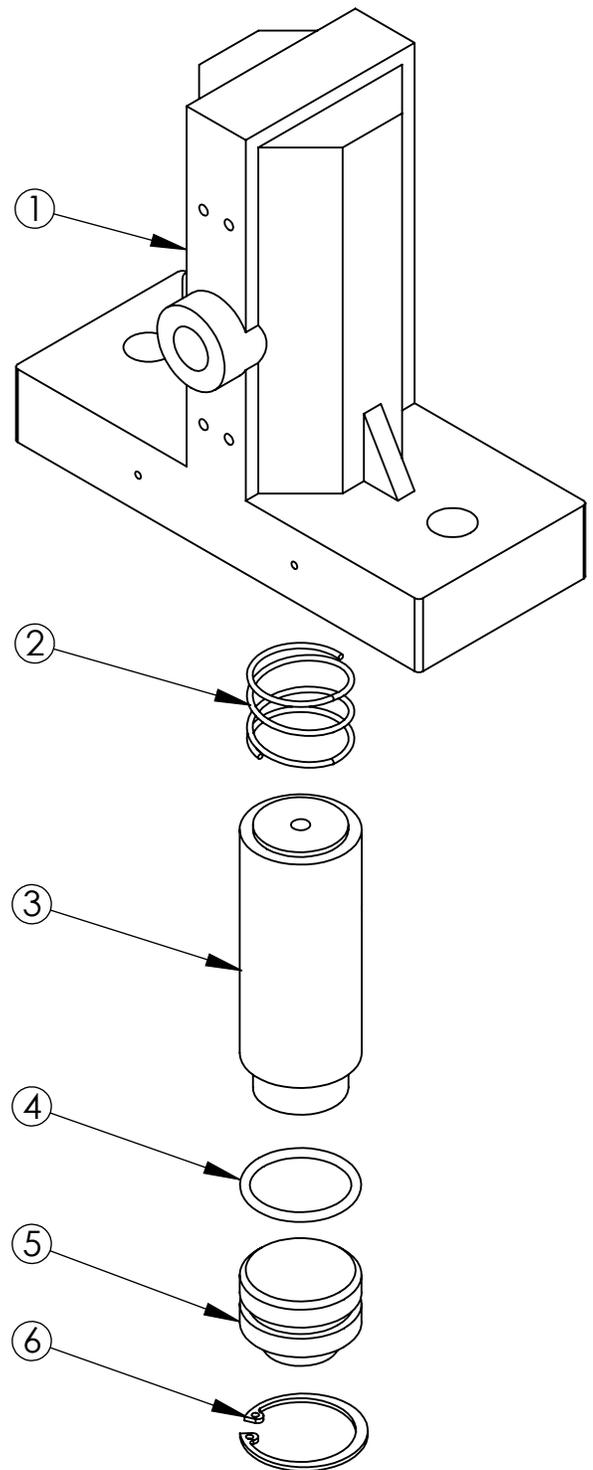
ITEM NO	55-1-1/2S*	55-1-1/2-SP*	55-1-1/2S-SP*	55-150	55-150S*
1	150PS04	150PS04	150PS04	150PS19	150PS19
2	N/A	150PS08	150PS08	150PS08	150PS08
3	150PS06	150PS02	150PS06	150PS20	150PS21
4	218	218	218	218	218
5	150PS05	150PS05	150PS05	150PS22	150PS22
6	5000-150	5000-150	5000-150	5000-150	5000-150

ITEM NO	55-2	55-2S*	55-2-SP*	55-2S-SP*	55-3
1	200PS04	200PS04	200PS04	200PS04	300PS04
2	N/A	N/A	200PS07	200PS07	N/A
3	200PS02	200PS06	200PS02	200PS06	300PS02
4	224	224	224	224	231
5	200PS05	200PS05	200PS05	200PS05	300PS05
6	5000-206	5000-206	5000-206	5000-206	5000-300

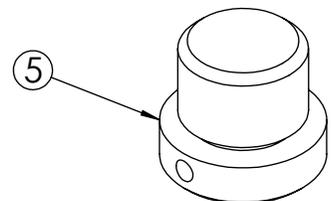
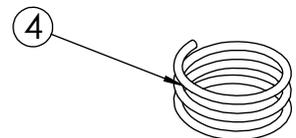
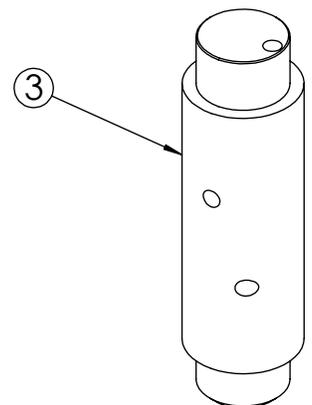
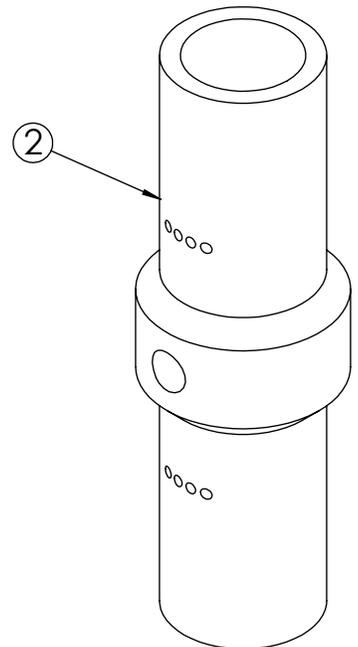
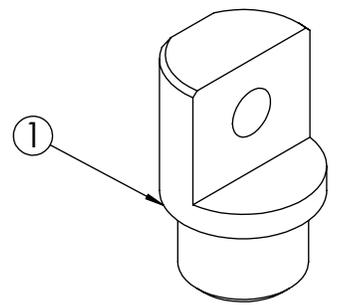
ITEM NO	55-3S*	55-3-SP*	55-3S-SP*	DESCRIPTION	QTY
1	300PS04	300PS04	300PS04	HOUSING	1
2	N/A	300PS07	300PS07	SPRING	1
3	300PS06	300PS02	300PS06	PISTON	1
4	231	231	231	O-RING	1
5	300PS05	300PS05	300PS05	PLUG	1
6	5000-300	5000-300	5000-300	SNAP RING	1

\* S - SILENT PISTON USED FOR THIS MODEL

SP - SPRING USED FOR THIS MODEL



# Model 10 Air Piston Vibrators



ITEM NO	10-5/8	10-5/8S*	10-3/4	10-3/4S*
1	62PS23	62PS23	75PS23	75PS23
2	62PS21	62PS21	75PS21	75PS21
3	62PS22	62PS26	75PS22	75PS26
4	62PS07	62PS07	75PS07	75PS07
5	62PS24	62PS24	75PS24	75PS24

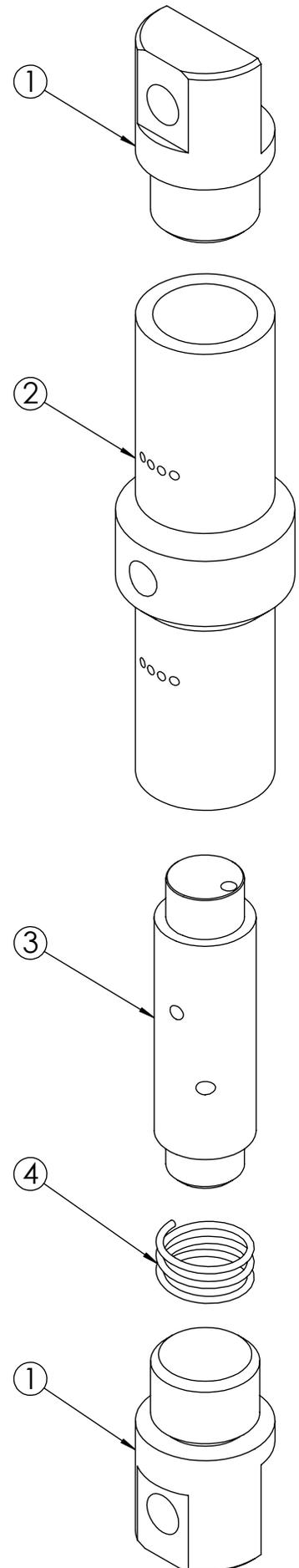
ITEM NO	10-1	10-1S*	10-1-1/4	10-1-1/4S*
1	100PS73	100PS73	125PS73	125PS73
2	100PS70-2	100PS70-2	125PS70-2	125PS70-2
3	100PS22	100PS26	125PS75	125PS76
4	100PS32	100PS32	125PS07	125PS07
5	100PS72-1	100PS72-1	125PS72-1	125PS72-1

ITEM NO	10-1-1/2	10-1-1/2S*	10-2	DESCRIPTION	QTY
1	150PS73	150PS73	200PS73	ATTACHING HEAD	1
2	150PS70-2	150PS70-2	200PS70-2	HOUSING	1
3	150PS02	150PS06	200PS02	PISTON	1
4	150PS08	150PS08	200PS07	SPRING	1
5	150PS72-1	150PS72-1	200PS72-1	END CAP	1

\* S - SILENT PISTON USED FOR THIS MODEL

NOTE: ALL 10-5/8 AND 10-3/4 MODELS USE INLET BUSHING (100PS25)  
AND HEX-SHAPED HOUSING

# Model 30 Air Piston Vibrators



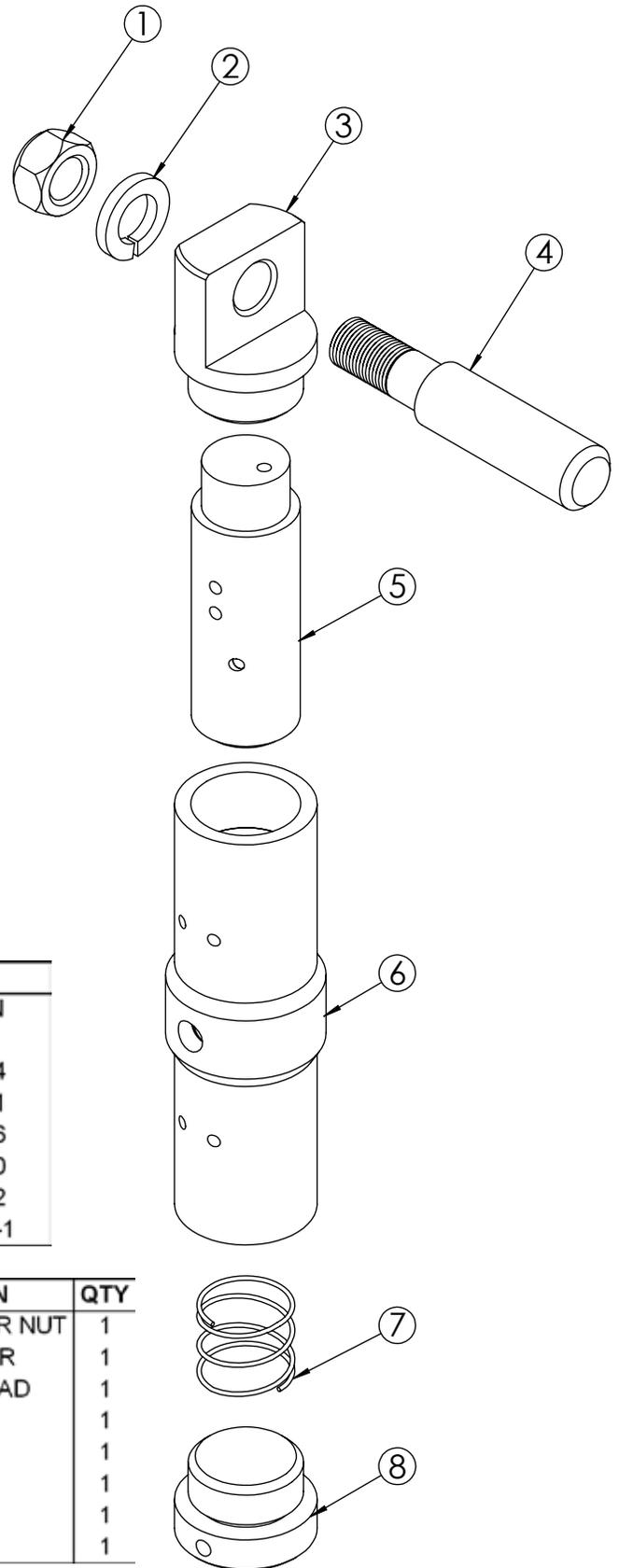
ITEM NO	30-5/8	30-3/4	30-1	30-1S*
1	62PS23	75PS23	100PS73	100PS73
2	62PS21-3	75PS21	100PS70	100PS70
3	62PS22	75PS22	100PS22	100PS26
4	62PS07	75PS07	100PS32	100PS32

ITEM NO	30-1-1/4	30-1-1/2	30-2	DESCRIPTION	QTY
1	125PS73	150PS73	200PS73	ATTACHING HEAD	2
2	125PS70	150PS70	200PS70	HOUSING	1
3	125PS75	150PS02	200PS02	PISTON	1
4	125PS07	150PS08	200PS07	SPRING	1

\* S - SILENT PISTON USED FOR THIS MODEL

NOTE: ALL 30-5/8 AND 30-3/4 MODELS USE AN INLET BUSHING (100PS25)  
AND HEX-SHAPED HOUSING

# Model 40 Air Piston Vibrators



ITEM NO	40-3/4	40-1	40-1S
1	3/8-16LN	3/8-16LN	3/8-16LN
2	3/8LW	3/8LW	N/A
3	75PS29	100PS74	100PS74
4	100PS31	100PS31	100PS31
5	75PS22	100PS22	100PS26
6	75PS21	100PS70-3	100PS70
7	75PS07	100PS32	100PS32
8	75PS24	100PS72-1	100PS72-1

ITEM NO	40-1-1/4	40-1-1/2	DESCRIPTION	QTY
1	3/4-10SN	3/4-10SN	LOCK NUT/STOVER NUT	1
2	N/A	N/A	LOCK WASHER	1
3	125PS74	150PS74	ATTACHING HEAD	1
4	VSP004	VSP004	PIN	1
5	125PS75	150PS02	PISTON	1
6	125PS70-3	150PS70-3	HOUSING	1
7	125PS07	150PS08	SPRING	1
8	125PS72-1	150PS72-1	END CAP	1

\* S - SILENT PISTON USED FOR THIS MODEL

# Model 42 Air Piston Vibrators

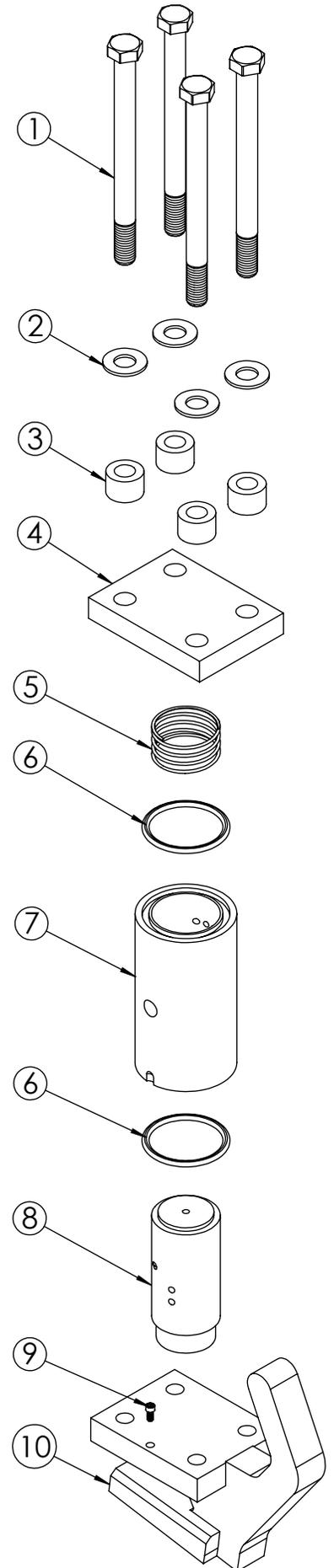
ITEM NO	42-2	42-2S*	42-2-SP*
1	5/8-11X7-1/2HH	5/8-11X7-1/2HH	5/8-11X7-1/2HH
2	5/8SAE	5/8SAE	5/8SAE
3	200PS13	200PS13	200PS13
4	200PS11	200PS11	200PS11
5	N/A	N/A	200PS07
6	330	330	330
7	200PS12	200PS12	200PS12
8	200PS02	200PS06	200PS02
9	8-32X3/8SH	8-32X3/8SH	8-32X3/8SH
10	200PS57W	200PS57W	200PS57W

ITEM NO	42-3	42-3-SP*	DESCRIPTION	QTY
1	3/4-10X10HH	3/4-10X10HH	HEX HEAD BOLT	4
2	3/4USSFW	3/4USSFW	FLAT WASHER	4
3	300PS13	300PS13	RUBBER BUFFER	4
4	300PS11	300PS11	TOP PLATE	1
5	N/A	200PS07	SPRING	2
6	339	339	O-RING	1
7	300PS12	300PS12	HOUSING	1
8	300PS02	300PS02	PISTON	1
9	8-32X3/8SH	8-32X3/8SH	SOCKET HEAD CAP SCREW	1
10	300PS29**	300PS29**	WEDGE WELD W/ BOTTOM PLATE	1

\* S - SILENT PISTON USED FOR THIS MODEL

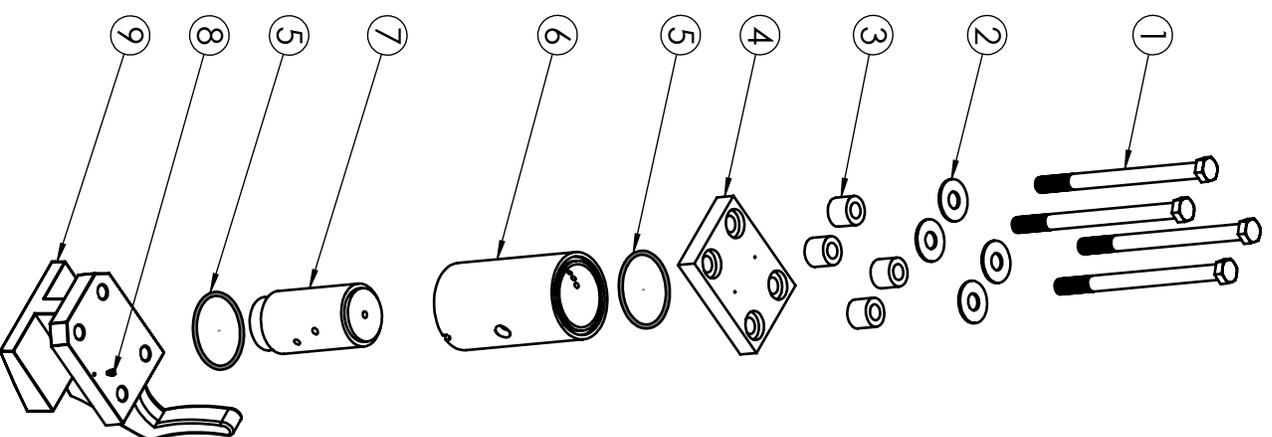
SP - SPRING USED FOR THIS MODEL

\*\* WEDGE IS MACHINED (NO BOTTOM PLATE)



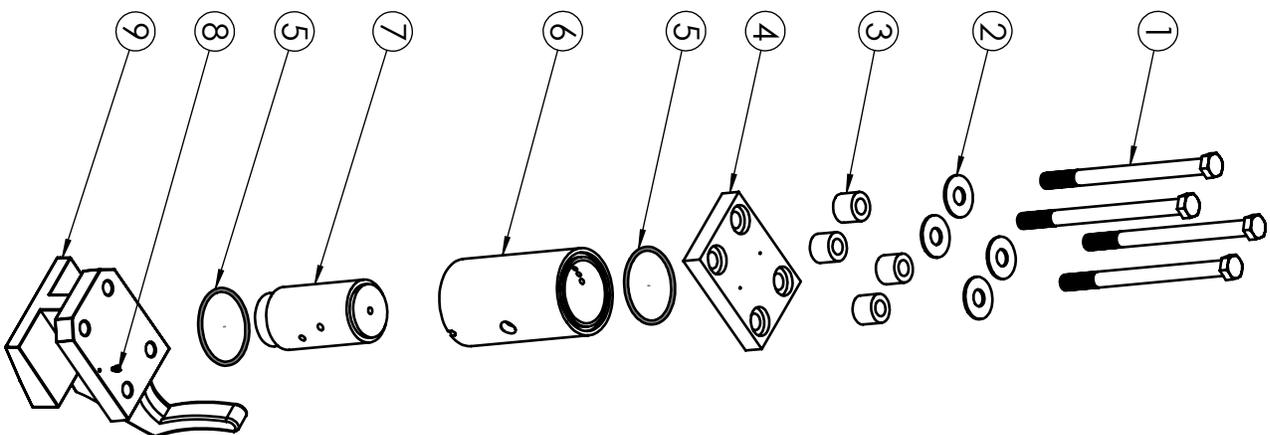
# Model: 44-3

ITEM #	PART #	DESCRIPTION	QTY.
1	3/4-10X10HH	HEX HEAD BOLT	4
2	3/4USSFW	FLAT WASHER	4
3	300PS13	RUBBER BUFFER	4
4	300PS11	TOP PLATE	1
5	339	O-RING	2
6	300PS12	HOUSING	1
7	300PS02	PISTON	1
8	8-32X3/8SH	SOCKET HEAD CAP SCREW	1
9	W-3	HOOK WEDGE	1

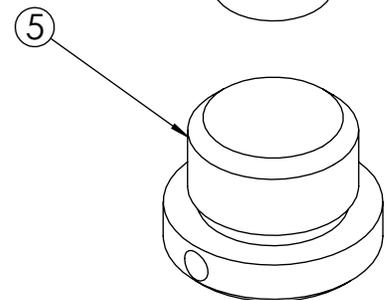
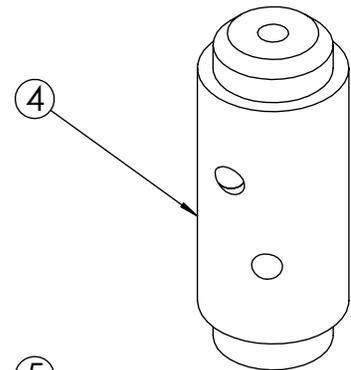
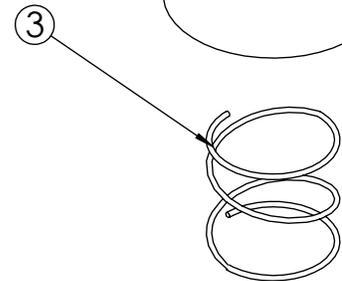
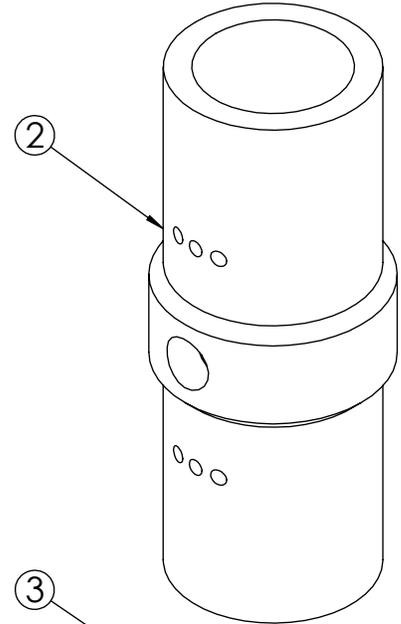
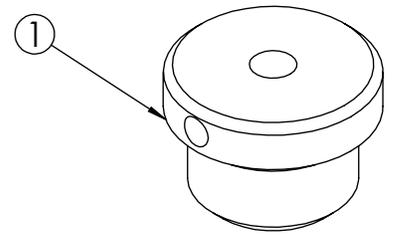


# Model: 44-3L

ITEM #	PART #	DESCRIPTION	QTY.
1	3/4-10X13HH	HEX HEAD BOLT	4
2	3/4USSFW	FLAT WASHER	4
3	300PS13	RUBBER BUFFER	4
4	300PS11	TOP PLATE	1
5	339	O-RING	2
6	300PS15	HOUSING	1
7	300PS25	PISTON (LONG STROKE)	1
8	8-32X3/8SH	SOCKET HEAD CAP SCREW	1
9	W-3	HOOK WEDGE	1



# Model 70 Air Piston Vibrators



ITEM NO	70-5/8	70-5/8S*	70-3/4
1	62PS02-1	62PS02-1	75PS05-1
2	62PS21	62PS21	75PS21
3	62PS07	62PS07	75PS07
4	62PS22	62PS26	75PS22
5	62PS24	62PS24	75PS24

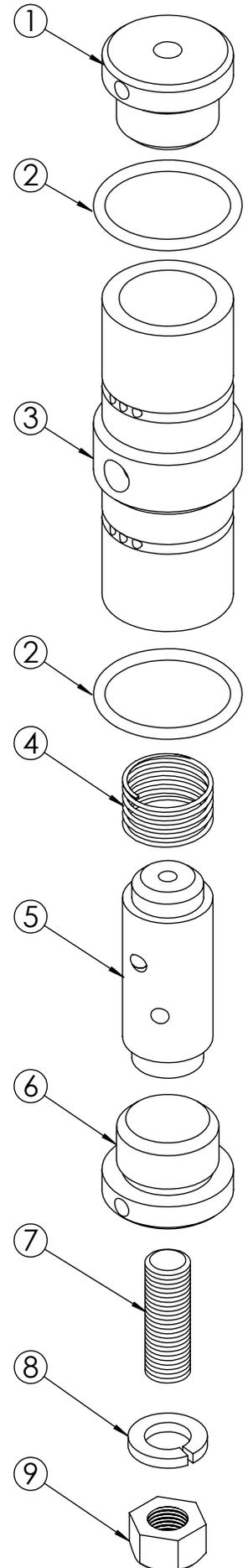
ITEM NO	70-3/4S*	70-1	70-1S*
1	75PS05-1	100PS72-2	100PS72-2
2	75PS21	100PS70	100PS70
3	75PS07	100PS32	100PS32
4	75PS26	100PS22	100PS26
5	75PS24	100PS72-1	100PS72-1

ITEM NO	70-1-1/4	70-1-1/4S*	DESCRIPTION	QTY
1	125PS72-3	125PS72-3	TAPPED END CAP	1
2	125PS70	125PS70	HOUSING	1
3	125PS07	125PS07	SPRING	1
4	125PS75	125PS76	PISTON	1
5	125PS72-1	125PS72-1	END CAP	1

\* S - SILENT PISTON USED FOR THIS MODEL

NOTE: ALL 70-5/8 AND 70-3/4 MODELS USE AN INLET BUSHING (100PS25)  
AND HEX-SHAPED HOUSING

# Model 80 Air Piston Vibrators



ITEM NO	80-1	80-1S*	80-1-1/4	80-1-1/4S*	80-1-1/2
1	100PS72-1	100PS72-1	125PS72-1	125PS72-1	150PS72-1
2	124	124	222	222	224
3	100PS70-1	100PS70-1	125PS70-1	125PS70-1	150PS70-1
4	100PS32	100PS32	125PS07	125PS16	150PS08
5	100PS22	100PS26	125PS75	125PS39	150PS02
6	100PS72-2	100PS72-2	125PS72-2	125PS72	150PS72-2
7	100PS41	100PS41	125PS41	125PS41	125PS41
8	1/2LW	1/2LW	5/8LW	5/8LW	5/8LW
9	1/2-20HN	1/2-20HN	5/8-18HN	5/8-18HN	5/8-18HN

ITEM NO	80-1-1/2S*	80-2	80-2S*	DESCRIPTION	QTY
1	150PS72-1	200PS72-1	200PS72-1	END CAP	1
2	224	332	332	O-RING	2
3	150PS70-1	200PS70-1	200PS70-1	HOUSING	1
4	150PS08	200PS07	200PS07	SPRING	1
5	150PS06	200PS02	200PS06	PISTON	1
6	150PS72-2	200PS72-2	200PS72-2	TAPPED END CAP	1
7	125PS41	200PS41	200PS41	MOUNTING STUD	1
8	5/8LW	7/8LW	7/8LW	LOCK WASHER	1
9	5/8-18HN	7/8-14HN	7/8-14HN	HEX NUT	1

\* S - SILENT PISTON USED FOR THIS MODEL

## WARRANTY AND GENERAL INFORMATION

### **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.

### **Errors, Shortages and 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.

### **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 faxed to you. 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 equipment built to specifications which vary from VIBCO's standard units are not returnable.

### **Responsibility**

VIBCO cannot be responsible for delays due to strikes, accidents, negligence of carriers or other causes beyond our control.

### **Freight Claims**

Should you receive a shipment from VIBCO which was damaged in transit, file your claim with the carrier immediately. All parts sold by VIBCO are on the basis of F.O.B. Wyoming, Rhode Island.

### **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.

### **Price Changes**

Prices are subject to change without notice.

### **Ordering Spare Parts**

Parts can be ordered through authorized distributors or directly from VIBCO. The following data should be provided when ordering:

- |                        |   |
|------------------------|---|
| From foot of housing:  | Model of unit.  |
| From spare parts list: | Reference number, part number, description and quantity required. |
| Shipping instructions: | Specify shipping point and method of shipping.                    |





Corporate HQ and Factory

[www.vibco.com](http://www.vibco.com)