

" INSTRUCTION **MANUAL**







B&H SERIES



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!



MOUNTING CHECKLIST

- ☐ Determine vibrator placement on equipment (box 5).
- ☐ Determine length of channel iron and style of mounting plate (box 4).
- □ STITCH weld mounting plate to channel iron (box 7).
- □ *STITCH* weld channel iron & mounting plate combo to bin (box 7).
- ☐ Attach vibrator to mounting plate. Check mounting plate for warping and shim if necessary. DO NOT OVER TIGHTEN THE BOLTS (box 8).
- ☐ Install safety chain or cable (box 9).
- ☐ Connect Hydraulics for vibrator using the ASME and SAE Standards (box 10).
- ☐ FILL OUT WARRANTY CARD & MAIL TO VIBCO!!!!



DON'T FORGET TO MAIL IN YOUR **WARRANTY CARD!**

ADDITIONAL DETAILS AVAILABLE ONLINE AT www.vibco.com

🔁 TECHNICAL DATA

			600 PSI (41.4 Bar)			800 PSI (55.2 Bar)				1000 PSI (69 Bar)				
Hydraulic Models	We	ight	Vibration /min.	Gallon /min.		trifugal orce	Vibration /min.	Gallon /min.		trifugal orce	Vibration /min.	Gallon /min.		trifugal orce
	lbs.	kg.	VPM	GPM	lbs.	Newtons	VPM	GPM	lbs.	Newtons	VPM	GPM	lbs.	Newtons
B-190	1.0	0.45	4,600	4.5	190	890	6,100	4.8	330	80	7,400	6.5	286	1,272
B-250	2.0	0.91	4,200	4.5	280	1,245	5,000	4.5	400	1,765	5,800	6.5	535	2,375
B-320	3.5	1.60	3,700	5.0	300	1,340	4,500	6.0	445	1,980	5,300	7.0	615	2,745
Weight Aug Vibration/min Collen/min Contribute Erron Count*														

D-320	3.5	.00 3,7	00 3	.0 300 1,0	4,300	0.0	1440	1,960
	Weight		Avg.	Vibration/min.	Gallon/min.	Centrifugal Force		Sound*
Hyd.Models	lbs.	kg.	PSI	VPM	GPM	lbs.	Newtons	dB
HF-800	37	17.0	600	5,000	3.2	1,300	5,785	72
HF-1200	38	17.4	800	4,500	2.9	1,900	8,450	74
HF-1500	39	17.7	900	4,000	2.6	2,000	8,900	76
HF-HC-3500	51	23.0	1,200	3,500	2.4	3,500	15,570	80
HL-3000	39	17.7	1,000	5,000	3.2	3,400	15,125	76
HLF-700	14	6.5	900	9,000	2.8	700	3,115	72
HLF-1300	20	9.0	1,000	9,000	2.8	1,300	5,785	72
HLF-1750	30	14.0	1,000	5,000	2.6	2,300	10,230	72
HLF-3500	35	16.0	1,200	4,000	2.5	3,500	15,570	72
HLF-5000	41	18.6	1,500	4,000	2.5	4,500	20,020	72
P " 16 A 1 14 1 0 POI/								

Decibel from A-scale at 1 meter & avg. PSI (or max, listed value) Data obtained on laboratory test block • Data subject to design changes
Frequency & force will decrease on less rigid mount • Max pressure 3,000 PSI

EXCEED MAXIMUM FLOW RATE FOR ANY MODEL

PLATE & CHANNEL SELECTION

Vibrator Force in lbs	Mounting Plate Thickness	Channel Iron Size	Factor A	Bin Wall Thickness	Facto B
101 - 500	1/4" - 3/8"	3" x 4.1 lbs. 3" x 5 lbs.	2	1/8" (10 ga.)	6
501- 1200	1/2"	4" x 5.4 lbs. 4" x 7.5 lbs.	3	or less 1/8" - 1/4"	5
1201-3000	5/8"	6" x 8.2 lbs. / 6" x 10.5 lbs.	4	1/4" - 3/8"	4
0004 5000	0/4" 4"	6" x 8.2 lbs. / 6" x 10.5 lbs.		3/8" - 1/2"	3
3001-5000	3/4" - 1"	8" x 8.5 lbs. / 8" x 11.5 lbs.	5	1/2" & up	2

- 1. Longer channel iron will not affect vibrator performance, but total channel length should not exceed length of bin wall.
- 2. Percentages shown indicate % of bin wall height your channel iron should be for shorter bins.
- 3. To match your vibrator on chart above, model number suffixes generally correspond to pounds of force generated. See chart (box 3).

1	11	N/A
	10	6 - 8 FT. (80 - 90%)
	9	5 - 7 FT. (70 -80%)
$\frac{1}{2}$	8	4 - 6 FT. (60 - 70%)
_	7	3 - 5 FT. (50 - 60%)
	6	2 - 4 FT. (50 - 60%)
	5	1 - 2 FT. (50 - 60%)
	4	N/A

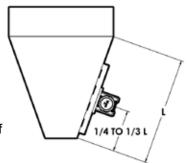
Channel Iron Length

MOUNTING PLATES, CHANNEL IRON & ACCESSORIES AVAILABLE FROM VIBCO OR LOCAL DEALER

VIBRATOR PLACEMENT

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.

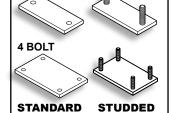


FOR ALTERNATE MOUNTS: refer to full detail instruction manual online at www.vibco.com or call 800-633-0032

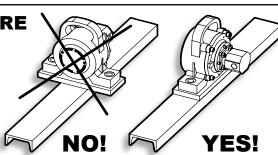
MOUNTING HARDWARE

A MOUNTING PLATE MUST BE USED to ensure proper stability for the vibrator.

Always start & stop welds 1 in. from ends to 2 BOLT



prevent heat concentration. Then weld 2 to 3 inches, skip 1 to 2 inches and repeat until the plate is securely mounted.



MOUNTING PLATE MUST BE MOUNTED PARALLEL TO CHANNEL IRON, NOT PERPENDICULAR. OTHERWISE, IT WILL CAUSE FLEXING & DAMAGE THE UNIT OR EQUIPMENT IT IS MOUNTED TO.

STITCH WELD MOUNTING

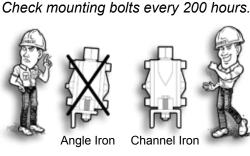
Be sure you have selected the proper length of channel using the tables above (SECTION 4). Improper mounting can result in failure of unit or damage to equipment. DO NOT MOUNT STITCH WELDS SHOULD **VIBRATOR DIRECTLY TO** SURFACE OF THE BIN !!!

STITCH WELDS SHOULD BE 3" - 6 LONG **LEAVING** BETWEEN START & STOP 1" (2.5cm) **EACH** FROM BOTH ENDS OF WELD CHANNEL TO PREVENT CRACKING

BOLTING PROCEDURE

MAX **GRADE 5** TORQUE **BOLT SIZE** ft-lbs 1/4" 9 5/16" 18 3/8" 32 1/2" 78 5/8" 160 3/4" 260 1" 580 1-1/4" 1105

For other bolt grades, please consult VIBCO.



DAMAGE TO THE BIN OR THE **VIBRATOR WILL OCCUR IF NOT MOUNTED SECURELY!**



CHAIN Mount one end to the vibrator and the other to the hopper or bin **hove** the vibrator **NEVER ATTACH TO** THE MOUNTING PLATE!



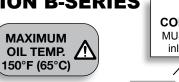
10 HYDRAULIC CONNECTION B-SERIES

- 1. Coat all fittings with sealing compound and secure hydraulic hoses to inlet & outlet sides of motor as marked by directional arrows.
- 2. Hook up ball valve on inlet side and check valve on outlet side to reservoir.
- 3. Check & tighten all fittings & connections before test running vibrator.

Always use mounting plate &

channel iron

4. Hydraulic system MUST have a filtration system & oil is industrial petroleum-based oil, SAE 10 to 30, with wear oxidation and foaming inhibitors, and a viscosity of 200 SSU.



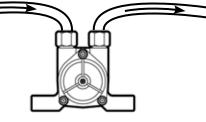
FLOW CONTROL VALVE MUST be located on inlet side of motor

CHECK VALVE MUST be located 16" - 24" (400mm-600mm) away from motor on outlet line side

DO NOT OVER **TIGHTEN HYDRAULIC HOSE FITTINGS**

FROM HYDRAULIC PUMP

	THREAD SIZE				
MODEL NUMBER	INLET	OUTLET			
B-190	3/8" - NPT	3/8" - NPT			
B-250	1/2" - NPT	1/2" - NPT			
B-320	1/2" - NPT	1/2" - NPT			





RETURN LINE Return line must be connected back to the oil reservoir and NOT to any line under pressure

ATTENTION: WHEN HOOKING UP MULTIPLE UNITS YOU MUST SUPPLY INDEPENDENT HYDRAULIC LINES. UNITS WILL NOT RUN TO FULL SPECIFICATIONS & MAY FAIL WHEN INSTALLED IN SEQUENCE.





foaming inhibitors, and a viscosity of 200 SSU.

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line side

TO

RESERVOIR

MAXIMUM

OIL TEMP.





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HYDRAULIC MOTOR HYDRAULIC CONNECTION H-SERIES CHECK VALVE Inlet hose size MUST match size of inlet motor fitting & MUST be located 16" - 24" (400mmoutlet hose size should be one size larger than outlet motor **FLOW** 600mm) away from motor on outlet 1. Coat all fittings with sealing compound and fitting & larger than inlet hose **CONTROL VALVE** secure hydraulic hoses to inlet & outlet sides MUST be located on of motor as marked by directional arrows. inlet side of motor Hook up flow valve on inlet side, check valve on outlet side & case drain hose back to reservoir. **FROM HYDRAULIC** Check & tighten all fittings & connections **PUMP** before test running vibrator. Hydraulic system MUST have a filtration system & oil is industrial petroleum-based DO NOT OVER TIGHTEN oil, SAE 10 to 30, with wear, oxidation and **HYDRAULIC HOSE FITTINGS**

	THREAD SIZE				
MODEL NUMBER	INLET	OUTLET	CASE DRAIN		
HF-800, 1200, 1500	3/4 - 16 (SAE8)	3/4 - 16 (SAE8)	7/16 - 20 (SAE4)		
HLF-700, 1300	9/16 - 18 (SAE6)	9/16 - 18 (SAE6)	7/16 - 20 (SAE4)		
HF-HC-HLF-1750, 3500 , 5000 & HL-3000	3/4 - 16 (SAE8)	3/4 - 16 (SAE8)	7/16 - 20 (SAE4)		

150°F (65°C) return line is not a direct line from vibrator to reservoir, case drain hose to reservoir MUST be installed ATTENTION: WHEN HOOKING UP MULTIPLE UNITS YOU MUST HOOK UP THE CASE DRAIN HYDRAULIC LINE. UNITS WILL BECOME DAMAGED IF RUN IN SEQUENCE WITHOUT A CASE DRAIN HOOK UP BACK TO THE RESERVOIR.

ADDITIONAL DETAILS AVAILABLE ONLINE AT www.vibco.com

INITIAL START UP

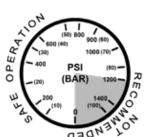


- 1. Be sure steps 1-11 are complete before starting vibrator. Missing a step can cause vibrator failure & void warranty.
- Always check pressure to & from vibrator with a pressure gauge. If inlet pressure exceeds 1200psi (82 bar) or outlet pressure exceeds 30psi (2 bar) check for restrictive fittings or increase hose size. Be sure case drain is hooked up as a return to reservoir. For Model's B outlet should be directly connected to the oil reservoir and carry NO back pressure.
- Do a guick inspection of hydraulic oil. If dark or thick, replace
- Inspect structure for cracks or fatigue and repair if any are found.
- Run unit for 5-10 seconds & check all fittings for leaks.

INLET PRESSURE

CASE DRAIN

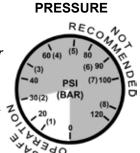
If outlet pressure exceeds 30psi or if



CHECK LINE PRESSURE

Always check pressure to & from vibrator with a pressure gauge. Insert gauge in-line with the vibrator before & after the inlet/outlet.

If inlet pressure exceeds 1200psi (82 bar) or outlet pressure exceeds 30psi (2 bar) check for restrictive fittings or increase hose size.



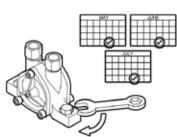
OUTLET



WARNING! HYDRAULIC OIL UNDER PRESSURE CAN PENETRATE SKIN AND RESULT IN INJECTION POISONING. IF OIL PENETRATES SKIN CONSULT WITH A DOCTOR IMMEDIATELY!

MAINTENANCE

Check tightness of mounting bolts every 200 hours or every month of operation.



Check tightness of all hydraulic hoses and connections.

Inspect hydraulic oil on a periodic basis. If dark or thick replace with new oil.

Check structure for cracking or fatiguing. If found, repair before running unit. Call VIBCO for instructions to repair fatigue cracking

TROUBLESHOOTING

LEAKING OIL?

- 1. Check tightness of all hydraulic fittings.
- 2. Be sure the check valve is installed in the proper direction with the flow of hydraulic oil.
- 3. Check outlet line pressure (panel 12). If outlet line pressure is over 30psi case drain hose to reservoir MUST be installed.
- 4. End cover leaks on B-Series vibrator is a result of high oil pressure. Check castings for cracks & contact VIBCO immediately.
- 5. If shaft seals are leaking on H-Series vibrator contact VIBCO for replacement kit & instructions. Shaft seal failure is due to excessive back pressure & case drain MUST be installed.

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:





Use this handy **QR Code** to get any of our **Product Catalogs**







