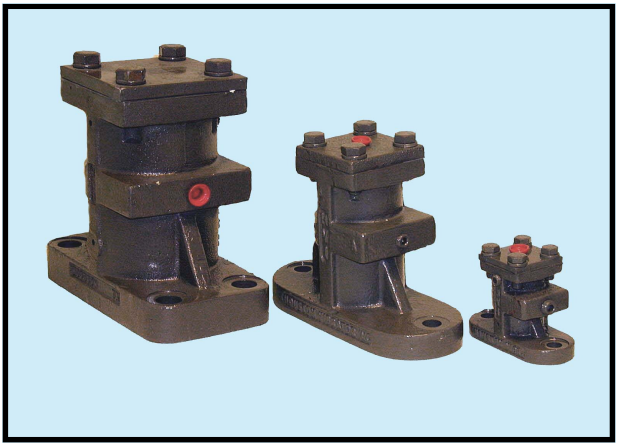
VIBTEC
VIBRATECHNIQUES LTD
Vibration Solutions

CE

BV
PNEUMATIC PISTON VIBRATORS
OPERATING MANUAL



Technical Characteristics

Model	Piston Dia. mm	Weight Kgs	Hopper Wall mm	Capacity in Sloping Section
BV 112	28	1.8	1.5-3.0	0.15 m^3
BV 150	38	4.1	1.5-3.0	0.4 m^3
BV 225	57	9.5	4.0-6.0	1.7 m^3
BV 312	80	24.0	6.0-10.0	8.0 m^3
BV 425	108	44.4	10.0-12.5	35.0 m^3
BV 650	165	176.0	10.0 & Up	200.0 m^3

IMPORTANT NOTICE

Vibrators and vibrating equipment can be dangerous if not used correctly.

1. **DO NOT** hold or touch when running.
2. **DO NOT** stand or sit on vibratory equipment when running.
3. **USE ONLY** for the purpose intended.
4. **USE ONLY** when vibrators are securely mounted.
5. **USE ONLY** when pneumatic hoses and fittings are securely tightened.
6. **ALWAYS** wear ear protectors.

OPERATING AND MAINTENANCE INSTRUCTIONS

Installation

1. Attach to hopper using mounting plate or channel.
2. Stitch weld mounting plate to hopper, leaving ends free of weld for approx. 20mm.
3. Check that plate is flat after welding.
4. Use high tensile bolts (quality 8.8 - DIN 931-933) sized accordingly to vibrator fixing holes.
5. Re-tighten all fixings after one hour of operation, then periodically thereafter.
6. If a single vibrator is used then position approx. one third up inclined face. When 2, 3 or more are used then space equally and stagger up the side of the hopper.
7. All vibrators that incorporate safety eyes for safety cables, should be used.
8. In most cases, continuous vibration is not necessary, short bursts will overcome the problem, which can be achieved by using a pneumatic or electric cyclic timer.

Pneumatic supply

1. The BV piston vibrators require a lubricated and filtered air supply. For continuous operation a simple on/off valve may be used, for single impact then a 3 port 2 way valve must be used; in both cases the valve must open quickly. See the back page for guidance on converting between single and continuous impacting.
2. Check and set air pressure for most effective vibrator operation; permitted range 2 to 6 bar.
3. Check lubricator level and if necessary add oil, SAE 10 or lighter. In extremely cold conditions, mix anti-freeze or paraffin with oil.
4. Periodically check all air connections and tighten if necessary.
5. Check air line filter and drain bowl.
6. Ensure vibrator interior is well lubricated if it is to be shut off for a long period of time.

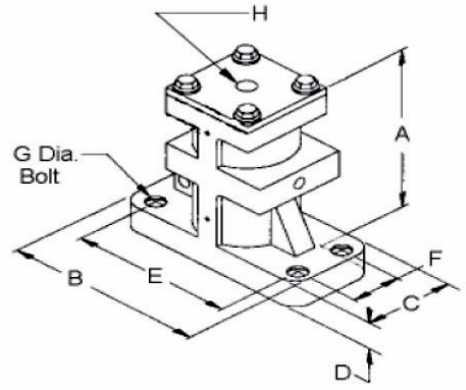
Trouble shooting

Vibrator does not operate:

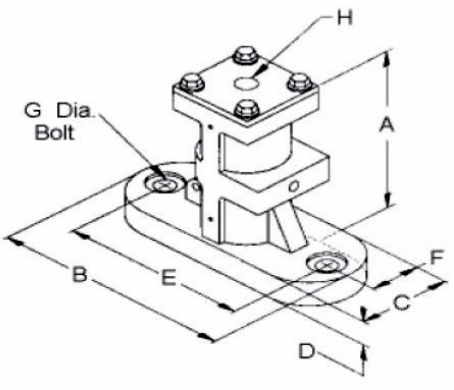
1. Check for adequate air pressure and flow.
2. Check whether mounting plate surface is flat.
3. Check that operating valve is opening quickly and located within 3m of the vibartor.
4. Check for broken spring.

Vibrator sluggish or slow to start:

1. Check interior for air line contamination.
2. Check for proper lubrication.
3. Check for defective operating valve.



Models BV 312,425 and 650



Models BV 112, 150 and 225

Dimensions (mm)								
Model	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
BV 112	33.1	114.3	50.8	112.7	88.9	25.4	12.7	1/4" BSP
BV 150	139.7	152.4	63.5	19.0	114.3	31.7	12.7	1/4" BSP
BV 225	184.1	228.6	88.9	25.4	190.5	44.4	15.8	1/4" BSP
BV 312	241.3	241.3	127.0	34.9	196.8	82.5	22.2	3/8" BSP
BV 425	304.8	355.6	152.6	38.1	304.8	101.6	25.4	1/2" BSP
BV 650	508.0	355.6	254.0	50.8	279.4	177.8	38.1	1/2" BSP

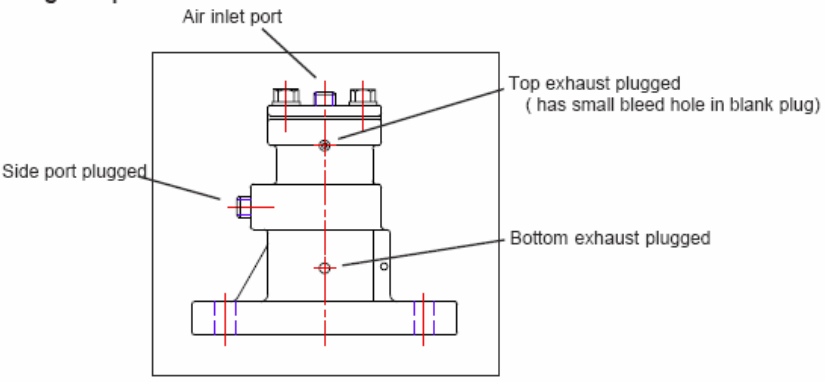
Single Impacting Force (kgs.m)			
Model	**2 Bar**	**4 Bar**	**6 Bar**
BV 112	0.15	0.29	0.44
BV 150	0.69	1.38	2.08
BV 225	0.97	4.01	5.98
BV 312	5.67	11.35	16.88
BV 425	21.18	42.21	62.00
BV 650	29.89	59.79	89.68

Continuous Impacting									
Model	**2 Bar (30 psi)**			**4 Bar (60 psi)**			**6 Bar (88 psi)**		
	Force (Kgs)	**Freq. VPM**	**Air L/min**	**Force (Kgs)**	**Freq. VPM**	**Air L/min**	**Force (Kgs)**	**Freq. VPM**	**Air L/min**
BV 112	33.1	4450	26	62.1	6200	57	97.5	7850	126
BV 150	62.1	3175	52	128	4600	98	182	5500	166
BV 225	144	2800	115	235	3600	172	318	4200	207
BV 312	314	2175	215	546	2900	301	787	3500	344
BV 425	474	1525	221	759	1950	373	1137	2400	451
BV 650	1319	975	708	2818	1425	1584	4525	1875	2605

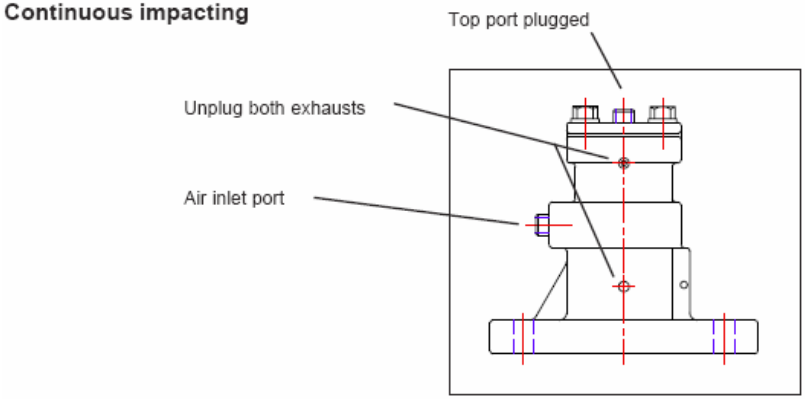
Converting from single to continuous impacting

The BV range of impacting linear vibrators are supplied for 'single impacting' using air inlet port in top plate. If continuous impacting is required, they can be easily converted by using the alternative air inlet port on the side and plug the top port. Also remove the top exhaust plug that has a small bleed hole as shown below.

Single impact



Continuous impacting



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