

Compact pneumatic ball vibrator which has abundant variations and applications

Model	Code Number
BH8	000897000
BH10A	000739000
BH19A	000740000
CH19A	000741000
CH25A	000742000
CH32A	000743000
UH13A	000744000
UH19A	000745000
UH25A	000746000

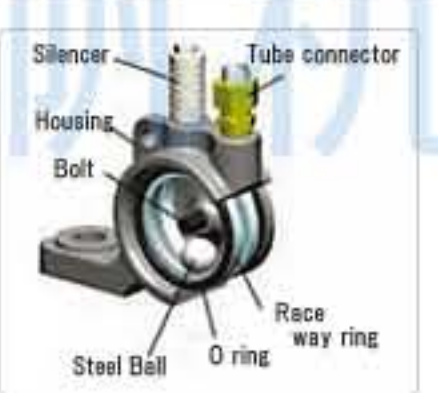


Feature Specification Size / Installation

Ball vibrator is compact vibrator that generates powerful centrifugal force vibration in the high speed revolution of the steel ball by compressed air. This is equipment with easy handling due to the simple principle and structure. Although this is generally used for blockade prevention of hopper, chute, etc., the application extends according to idea. Frequency and centrifugal force are freely changeable only by operation of air pressure. According to the installation conditions of the site, it can select from 3 models that have different air supply positions. (Lubrication by oiler is indispensable)

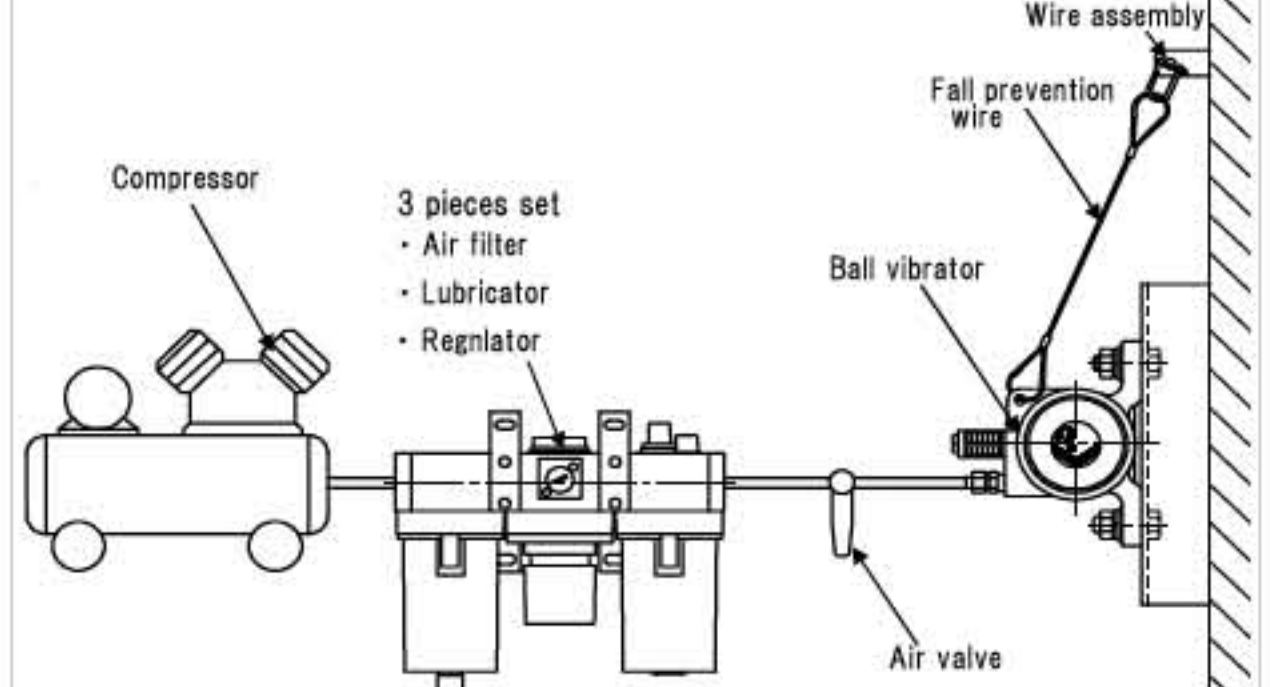
The easy principle decreases failure

The principle which a steel ball in cast body turns at high speed by supply of air, and generates vibration does not require complicated parts, and decreases failure.



Adjust power of vibration by pressure regulator of supply air

Set air pressure can be raised when vibration is weak, and the pressure can be lowered when vibration is too strong, then the best vibration adjustment in the site can be made simply.



Easy maintenance

Replacement of ball is possible for all models. Maintenance is easy because replacement of ball can be made only by loosening one bolt of the center and removing side cover. (Notes: When wear of internal raceway ring is remarkable, the maintenance only by ball replacement is inadequate.)

Application extends according to your idea

The ball vibrator generally used for blockade prevention of bulk material stored in hopper or chute, is also applicable as a prime mover of the vibration table used for filling as another application. There is an application, such as giving vibration as dissolution of part supply stagnation of a production line etc.



Selection of model suitable for the installation conditions at the site is possible

When there are restrictions in the pulling-out direction of an air tube, UH type (Supply air from top) or CH type (Supply air from side) can be chosen. In the case of the conditions which can be attached only with one bolt, there is also BH type of one-point installation.



Complete airtight waterproofing structure

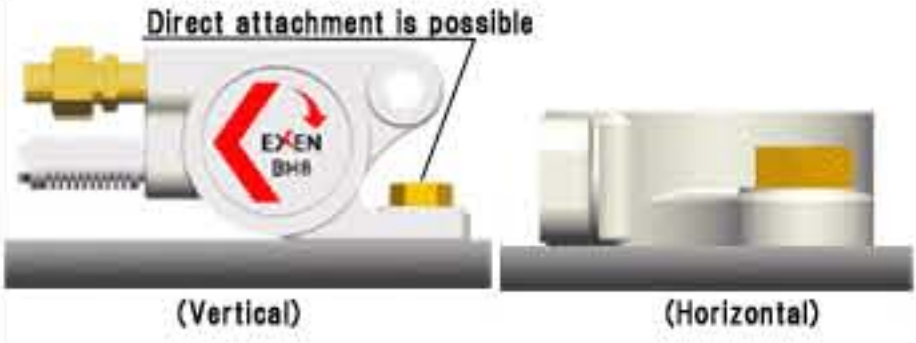
Because this ball vibrator is waterproofing structure, it can be used even in the watery spot. If the hose of air intake and exhaust is extended, this will be installed underwater. (Notes: In exhaust extension, some vibration efficiency falls.)

Safety wire hole

The ball vibrator of all models has a hole for attaching fall prevention wire. We recommend attachment of all prevention wire for safety. (The wire is sold as an optional)

Lightweight and compact

The installation width of smallest type BH8 is 18mm and the weight is 0.3kg. Thereby, this can be installed also in the small hopper and the narrow place in which the regular vibrator cannot be installed. UH type and BH type can choose various directions of air supply and exhaust respectively, selection of model suitable for attachment conditions is possible. Also, high air tightness enables underwater application. (When exhaust pipe is extended into the atmosphere)



dimensional chart (mm)

Model	L	L1	H	H1	W	t	t1
BH8	76	(105)	45	35.5	18	8.5	8.5
BH10A	80	(109)	30	51	30	7	7
BH19A	110	(148)	40	70	37	14	11
CH19A	130		87			12.5	
CH25A	135	(159.5)	106.5		51	15.5	
CH32A							
UH13A	130		66	(96)		29	
UH19A	128		84	(122)		37	
UH25A	160		100	(138)		41	15.5

Model	P	P1	P2	φd	φE	G	dia. of application tube
BH8	11	15	12.5	9 (M8)	-	1/8B	φ8×φ6
BH10A		19	19				
BH19A	14	24	27	11 (M10)			
CH19A					7	1/4B	φ8×φ6
CH25A				13 (M12)			
CH32A	101					1/8B	
UH13A				11 (M10)		1/4B	
UH19A							
UH25A	126			13 (M12)			

\*Bolt recommends a class 10.9

dimensional chart (inch)

Model	L	L1	H	H1	W	t	t1
BH8	3.0	(105)	1.8	1.4	0.7	0.3	0.3
BH10A	3.1	(109)	1.2	2.0	1.2	0.3	0.3
BH19A	4.3	(148)	1.6	2.8	1.5	0.6	0.4
CH19A	5.1		3.4			0.5	
CH25A	5.3	(159.5)	4.2		2.0	0.6	
CH32A							
UH13A	5.1		2.6	(96)	1.1		
UH19A	5.0		3.3	(122)	1.5	0.5	
UH25A	6.3		3.9	(138)	1.6	0.6	

Model	P	P1	P2	φd	φE	G	dia. of application tube
BH8	0.4	0.6	0.5	0.4 (5/16)	-	1/8B	φ0.3×φ0.2
BH10A		0.7	0.7				
BH19A	0.6	0.9	1.1	0.4 (3/8)			
CH19A					0.3	1/4B	φ0.3×φ0.2
CH25A				0.5 (1/2)			
CH32A	4.0					1/8B	
UH13A				0.4 (3/8)		1/4B	
UH19A							
UH25A	5.0			0.5(1/2)			

\*Bolt recommends a class 10.9

Ball vibrator specification (mm)

Model	Required to start (Mpa)		Frequency(Hz)								
			Centrifugal force(kN) Air consumption(N m³/min)								
	Vert.	Horz.	Hz	kN	N m³/min	Hz	kN	N m³/min	Hz	kN	N m³/min
BH8	0.02	0.01	322	0.09	0.04	348	0.13	0.06	432	0.17	0.08
BH10A			285	0.13	0.07	324	0.17	0.10	377	0.23	0.12
BH19A			174	0.60	0.14	204	0.83	0.19	227	1.02	0.25
CH19A		0.02	162	0.52	0.13	189	0.71	0.18	211	0.89	0.24
CH25A			110	0.79	0.17	129	1.09	0.23	144	1.36	0.30
CH32A						104	1.22	0.22	118	1.56	0.28
UH13A		0.03	264	0.30	0.11	310	0.41	0.15	341	0.50	0.19
UH19A		0.06	163	0.53	0.13	192	0.73	0.18	214	0.91	0.23
UH25A		0.13	110	0.67	0.11	127	0.90	0.15	140	1.09	0.19

Model	Frequency(Hz)						Weight (kg)
	Centrifugal force(kN) Air consumption(N m³/min)						
	0.5MPa			0.8MPa			
BH8	471	0.20	0.09	499	0.22	0.10	0.3
BH10A	418	0.28	0.14	451	0.33	0.17	0.5
BH19A	245	1.19	0.31	259	1.33	0.37	1.1
CH19A	228	1.03	0.29	240	1.15	0.35	1.2
CH25A	155	1.57	0.37	164	1.76	0.43	2.6
CH32A	129	1.87	0.34	137	2.11	0.40	2.4
UH13A	366	0.57	0.23	383	0.63	0.23	0.7
UH19A	231	1.06	0.29	246	1.20	0.34	1.2
UH25A	152	1.28	0.24	162	1.46	0.23	1.9

\* Please use it with the ambient temperature of 80 degrees C or less.  
 \* The above-mentioned specification is a result on the measurement condition of our company. It may differ from the above-mentioned specification according to installation conditions.  
 \* A starting pressure may become higher than our test is carried out air pressure up gradually before [3m] of a vibrator.  
 \* A straight is the mounting direction of a dimensional drawing, and the level is the result of the mounting direction which a ball rotates at the number level (for it to be superficial). In the case of mounting angles other than a straight, perpendicular lay also serves as the inclination for dynamic pressure to be low.

Ball vibrator specification (inch)

Model	Required to start (Psi)		Frequency(Hz)								
			Centrifugal force(kN) Air consumption(ft³/min)								
	Vert.	Horz.	Hz	b <sub>f</sub>	ft³/min	Hz	b <sub>f</sub>	ft³/min	Hz	b <sub>f</sub>	ft³/min
BH8	2.90	1.45	322	20	1.41	348	29	2.12	432	38	2.82
BH10A			285	29	2.47	324	38	3.53	377	52	4.24
BH19A			174	135	4.94	204	187	6.71	227	229	8.83
CH19A		2.90	162	117	4.59	189	160	6.36	211	200	8.47
CH25A			110	178	6.00	129	245	8.12	144	306	10.59
CH32A						104	274	7.77	118	351	9.89
UH13A		4.35	264	67	3.88	310	92	5.30	341	112	6.71
UH19A		8.70	163	119	4.59	192	164	6.36	214	205	8.12
UH25A		18.86	110	151	3.88	127	202	5.30	140	245	6.71

Model	Frequency(Hz)						Weight (lb)
	Centrifugal force(kN) Air consumption(ft³/min)						
	72.5Psi			87Psi			
BH8	471	45	3.18	499	49	3.53	0.14
BH10A	418	63	4.94	451	74	6.00	0.23
BH19A	245	268	10.95	259	299	13.06	0.50
CH19A	228	232	10.24	240	259	12.36	0.54
CH25A	155	353	13.06	164	396	15.18	1.18
CH32A	129	420	12.01	137	474	14.12	1.09
UH13A	366	128	8.12	383	142	9.89	0.32
UH19A	231	238	10.24	246	270	12.01	0.54
UH25A	152	288	8.47	162	323	9.89	0.86

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