

MARTIN® BD Series Ball Vibrators

Technical Data Sheet

BD Series dual-mount ball vibrators are designed to deliver slight to moderate force. Dual mount bracket versatility adapts BD Vibrators to a wide variety of jobs. BD-10 handles applications on small hoppers, chutes, match plates, light sifting or feeding and lab testing. Original equipment on many products. A tapped exhaust port vents discharge through a hose or muffler.

BD-13 is used where powerful adjustable vibration is needed along with small size and low noise level.

BD-16 is a heavy hitter, designed for stubborn material flow problems. Will induce flow in hoppers to 1,300 pounds capacity and is recommended for feeding jobs to 1/2 ton.

BD-25 is an amazingly versatile vibrator, without equal for durability. Speed is infinitely variable to 11,000 vpm and is used on bins to 3,800 pounds hopper capacity.

All models are available in cast iron construction (shown) featuring tapped exhaust ports. BD-10 through BD-19 are also available in lighter duty aluminum models.



Part Numbers

Model†	Aluminum	Ductile Iron	Air Muffler
BD-10	24190	1050	31622
BD-13	10447	12737	31623
BD-16	10939	12726	31623
BD-19	12531	1950	31623
BD-25		12655	31623

†Only aluminum BD-10 has exhaust port for air muffler.

Unbalance and Noise Test Data

Model	Unbalance lb—in.	vpm††	db††
BD-10	.003	17500	77
BD-13	.008	13300	77
BD-16	.020	10850	78
BD-19	.037	11200	79
BD-25	.110	8750	80

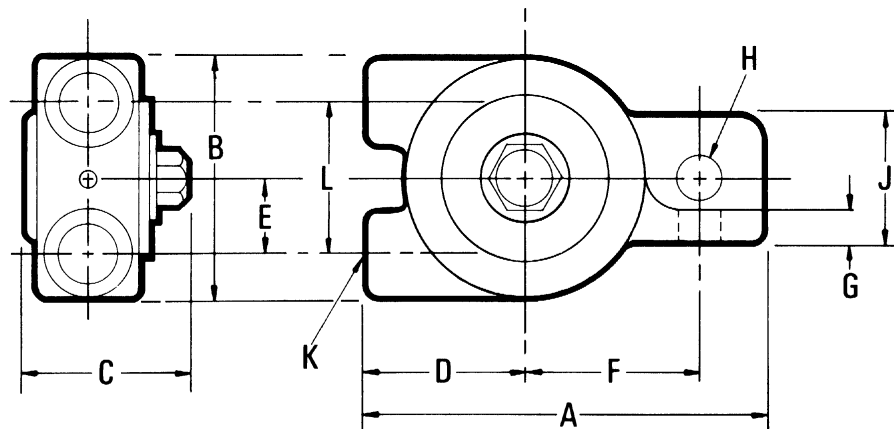
††Decibels measured with muffler connected to exhaust port and vibrator securely mounted on test block. Vpm represents highest speed vibrator can attain and produce 85 db or less. (Note: Test is a comparison of vibrators. Levels will vary with each application.)

Performance Data

Model	20 psi (1.38 bar)			40 psi (2.76 bar)			60 psi (4.14 bar)			Max. lb (kg) material in slope of bin
	vpm	Force lb (kg)	cfm (lit/min)	vpm	Force lb (kg)	cfm (lit/min)	vpm	Force lb (kg)	cfm (lit/min)	
BD-10	17000	25 (11)	2.0 (57)	21000	38 (17)	4.0 (113)	25000	54 (24)	6.0 (170)	540 (245)
BD-13	12000	33 (15)	2.5 (71)	15000	51 (23)	5.0 (142)	19000	82 (37)	7.5 (212)	820 (372)
BD-16	11000	69 (31)	3.0 (85)	13000	96 (44)	6.0 (170)	15500	137 (62)	8.0 (227)	1370 (621)
BD-19	10500	115 (52)	4.0 (113)	14000	205 (93)	7.0 (198)	16000	270 (122)	11.0 (312)	2700 (1225)
BD-25	7500	175 (79)	6.0 (170)	9700	275 (125)	10.0 (283)	11000	380 (172)	13.0 (368)	3000 (1361)

***Rule of thumb vibrator sizing:** One lb vibrator force for each 10 lb of bin content. Mount vibrator as close as possible to material outlet. Reinforce mount area to prevent flexure of bin wall at mount location.

Dimensions - in. (mm)



Model	A	B	C	D	E	F	G	H**	J	K*
BD-10	3.1250 (79)	1.8750 (48)	1.5937 (40)	1.2500 (32)	0.5937 (15)	1.3750 (35)	0.2500 (6)	0.3125 (8)	0.8750 (22)	0.125 (3)
BD-13	3.7500 (95)	2.1875 (56)	1.3750 (40)	1.6562 (42)	0.625 (16)	1.5625 (40)	0.3125 (8)	0.3750 (10)	1.1250 (29)	0.250 (6)
BD-16	4.1800 (106)	2.5625 (65)	1.5625 (40)	1.6875 (43)	1.8125 (46)	1.8125 (46)	0.3750 (10)	0.3750 (10)	1.2500 (32)	0.250 (6)
BD-19	4.4375 (113)	2.7500 (70)	1.7187 (43)	1.8750 (48)	0.8125 (21)	1.9375 (49)	0.3750 (10)	0.3750 (10)	1.3125 (33)	0.250 (6)
BD-25	5.2187 (133)	3.2500 (83)	2.0000 (51)	2.1562 (55)	1.0930 (28)	2.3125 (59)	0.5000 (13)	0.5000 (13)	1.6250 (41)	0.250 (6)

*Bolt size.

**Pipe tap size.

See the operator's manual for application information and mount selection.