

DYNAPAC CONCRETE EQUIPMENT

EB Ball Vibrators



INSTRUCTIONS & SPARE PARTS CATALOGUE

EB-IS-10576-1-ENG

DYNAPAC

SAFETY INSTRUCTIONS

- **MACHINES SUBMITTED**: Powered with : Electric, Pneumatic, Petrol or Diesel engine.

- **SYMBOLS**: The words **WARNING** and **CAUTION** used in safety instructions, have the following meanings :
WARNING indicates hazards or hazardous procedures which could result in serious injury or death if the **WARNING** is not observed.
CAUTION indicates hazards or hazardous procedures which could result in injury or damage to equipment if the **WARNING** is not observed.

- **IMPORTANT RULES FOR YOUR SAFETY**:



WARNING

The machine must not be modified without prior consent of the manufacturer. Use only original parts. If modifications are made without prior consent of the manufacturer there is a risk of serious injury to the personal.

- These safety recommendations have been compiled from international safety standards. Local regulations must also be checked and observed. Before using the machine, read carefully these instructions and keep them in a safe place.
- Make sure that the signs about using, safety, and maintenance are always legible.
- The use of the machine is restricted to the applications specified in the product literature.
- Always change damaged parts immediately. Change wear parts in due time.

- **SAFETY EQUIPMENT** :



WARNING

The admissible sound level of 85 dB (A), can be exceeded because of the machine and/or the application. Long time exposure to loud noise without ear protectors can cause permanent damage to hearing. Long time exposure to vibrations can damage the hands, fingers and wrists. Do not use the machine if you are experiencing discomfort, cramp or pain. Consult a doctor before working again with the machine.

- Always use approved safety equipment. The following safety equipment applies to operators and other personnel in the immediate vicinity of the working zone.
- Safety helmet.
- Ear protectors.
- Dust mask in dusty environments.
- Protective gloves.
- Protective shoes.
- Goggles.

To avoid the risk of clothes being caught in the machine, avoid wearing loose-lifting clothes. If you have long hair, cover it with a hair net.

- **WORKING AREA** :



WARNING

Do not use the machine in explosive environments.

Do not operate a machine powered by a petrol or diesel engine in poorly ventilated spaces. These types of engines produce toxic gases which can cause serious health troubles.

- POWER SUPPLY :



WARNING

Make sure that the power supply equipment complies with the relevant safety requirements of the local and the international standards.

- Electric machine : It must be ensured that the machine is connected to the voltage and the frequency specified on the name plate. The power supply cable has to be properly sized. Check that the cable and the plug of the machine are not damaged. Never switch off the machine by pulling the plug from its socket. Use the machine switch. Keep the cable out of the moving parts of the machine.

- Pneumatic machine : Check that the compressed-air hose and the hose coupling are not damaged. Never attempt to loosen a compressed-air hose which is pressurized. First switch off the air at the compressor and then leave the machine running itself to discharge the hose after some seconds.

- Machine powered by petrol or diesel engine : Petrol has an extremely low flash-point and can be explosive in certain situations. Keep away from all hot or spark-generating objects, do not smoke, when handling fuel. Wait until the machine has cooled before filling the tank. Avoid spilling petrol or diesel on the ground.

- STARTING THE MACHINE :



CAUTION

Before starting make yourself familiar with the machine and make sure that the machine does not show any obvious faults. Then start the machine according the instruction and spare parts catalogue.

- OPERATION :



CAUTION

Use the machine only for the purpose for which it is intended. Make sure you know how to stop the machine quickly in the event of an emergency situation. Do not touch rotating parts during operation.

- MAINTENANCE :



CAUTION

Maintenance work must only be carried out by skilled personnel. Keep unauthorized persons away from the machine. Do not carry out maintenance work while the machine is moving or the engine is running. Never use a machine which is damaged.

- BE ALERT :



CAUTION

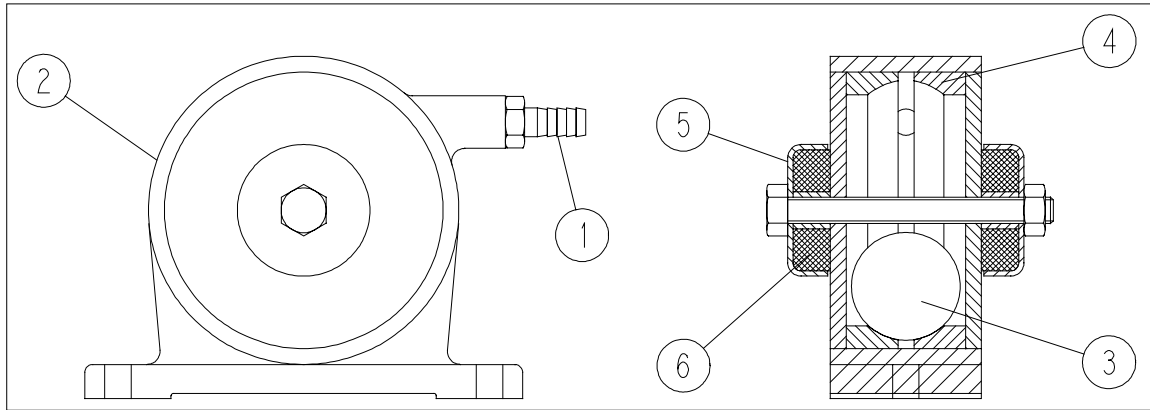
Always concentrate on what you are doing. Use common sense. Never operate the machine if you are tired or under the influence of drugs alcohol or other substances which can affect your vision, reaction, ability or judgement.

GENERAL

DYNAPAC EB pneumatic ball vibrators are designed for the vibration of any kind of materials which can be feeded, compacted or separated.

Variable speed and force output make the EB the ideal vibrator for small or medium size hoppers, bins or screens. The exclusive built-in mufflers make the EB the quietest in the industry and with their low cost services (easy to install, self-cleaning, maintenance free operation), EB vibrators are economical.

DESIGN



All DYNAPAC EB pneumatic ball vibrators are of similar construction. Compressed air is supplied to the vibrator through the nipple **1** screwed on the body **2**. Vibrations are generated by the rotation of the ball **3** on the races **4**. Air escapes by the flanges **5** and the mufflers **6**.

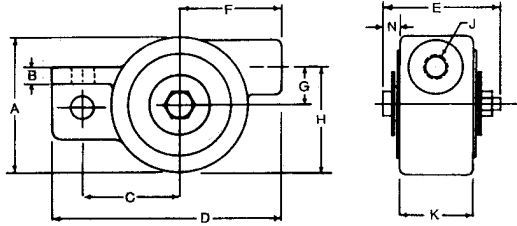
TECHNICAL DATA

		EB 10			EB 13			EB 19		
		40 PSI 2,8 bar	60 PSI 4,1 bar	80 PSI 5,5 bar	40 PSI 2,8 bar	60 PSI 4,1 bar	80 PSI 5,5 bar	40 PSI 2,8 bar	60 PSI 4,1 bar	80 PSI 5,5 bar
Frequency	rpm	20000	22000	-	16000	18000	-	11000	13000	14000
Centrifugal force	N (lb)	230 (52)	280 (62)	-	310 (69)	390 (87)	-	1250 (280)	1740 (390)	2000 (450)
Air consumption	l/mn (cfm)	110 (4)	170 (6)	-	110 (4)	170 (6)	-	200 (7)	310 (11)	430 (15)
Noise level	dB(A)	74			74			76		
Weight	kg (lb)	0,32 (1)			0,32 (1)			1,56 (3)		

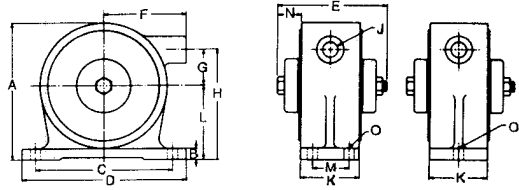
		EB 25			EB 35			EB 41		
		40 PSI 2,8 bar	60 PSI 4,1 bar	80 PSI 5,5 bar	40 PSI 2,8 bar	60 PSI 4,1 bar	80 PSI 5,5 bar	40 PSI 2,8 bar	60 PSI 4,1 bar	80 PSI 5,5 bar
Frequency	rpm	10000	11000	11900	7600	8200	8800	5000	6500	7000
Centrifugal force	N (lb)	1650 (370)	2000 (450)	2400 (540)	2630 (590)	3110 (700)	3600 (810)	2360 (530)	4050 (910)	4670 (1050)
Air consumption	l/mn (cfm)	290 (10)	400 (14)	510 (18)	400 (14)	510 (18)	630 (22)	430 (15)	570 (20)	740 (26)
Noise level	dB(A)	77			79			81		
Weight	kg (lb)	1,88 (5)			3,26 (7)			3,78 (8)		

DIMENSIONS

MODELS 10 & 13



MODELS 19, 25, 35, 41



MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O
EB 10	2	1/4	1-9/16	3-5/8	2-1/4	1-9/16	1/2	1-1/2	1/8	1-3/16	-	-	-	-
EB 13	2	1/4	1-9/16	3-5/8	2-1/4	1-9/16	1/2	1-1/2	1/4	1-3/16	-	-	-	-
EB 19	3-1/2	3/8	4	5	3-3/8	2-1/8	13/16	2-3/4	1/4	1-5/8	1-15/16	-	7/8	3/8
EB 25	3-3/4	3/8	4	5	3-3/4	2-5/16	7/8	2-15/16	1/4	1-3/4	2-1/16	-	7/8	3/8
EB 35	4-5/8	1/2	5	6-1/4	4	2-7/16	1-3/16	3-3/4	1/4	2-3/16	2-9/16	-	7/8	1/2
EB 41	5-1/8	1/2	5-1/2	6-1/2	4-1/8	3	1-5/16	4-1/8	3/8	2-1/4	2-13/16	1-1/4	7/8	3/8

All dimensions above are in inches

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O
EB 10	51	6	40	92	57	40	13	38	1/8	30	-	-	-	-
EB 13	51	6	40	92	57	40	13	38	1/4	30	-	-	-	-
EB 19	89	10	102	127	86	54	21	70	1/4	41	49	-	22	10
EB 25	95	10	102	127	95	59	22	75	1/4	44	52	-	22	10
EB 35	117	13	127	159	102	62	30	95	1/4	56	65	-	22	13
EB 41	130	13	140	165	105	76	33	105	3/8	57	71	32	22	10

All dimensions above are in millimetres except J

OPERATING INSTRUCTIONS

No lubrication is required for the EB pneumatic ball vibrators. However, clean filtered air is recommended for more efficient operation. A valve or regulator to control incoming air will allow for variable speed and force output.

The EB vibrators are self-starting so they can operate in any position.

For freezing weather conditions, the injection of alcohol or antifreeze into the air stream will permit uninterrupted operation for vibrators operating outdoors during frigid conditions.

AVAILABLE ACCESSORIES

- P/N 365587 Bearing bracket for EB 19, 25, 35
- P/N 365588 Bearing bracket for EB 41
- P/N 365589 Air-pressure regulator 1/4 " for EB 10, 13
- P/N 365590 Air-pressure regulator 3/8 " for EB 19, 25
- P/N 365591 Air-pressure regulator 1/2 " for EB 35, 41