



Specialists in the Precision Processing of Dry Materials

Vibra Screw Inc.

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VOLUMETRIC BELT FEEDERS

**Reliable,
High-
Accuracy
Belt
Feeders**

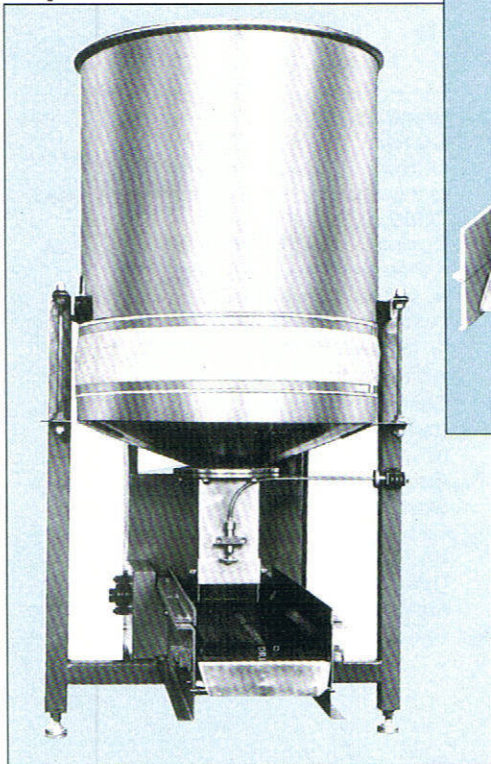
Controlled Vibration Feeds Most Materials

Vibra Screw Volumetric Belt Feeders provide accurate and economical feeding of a wide range of dry bulk materials. These feeders offer a distinct advantage in handling abrasive materials as well as waxy and pressure sensitive materials. Soaps, detergents, chemicals and many types of food are fed without material degradation, and at accuracies of $\pm 1-2\%$.

Large, heavy-duty models operate in continuous service handling high bulk density materials such as ores, sand, lime, cement as well as chemicals and foods in large volume.

Type LBB Belt Feeder

The Vibra Screw Type LBB Volumetric Belt Feeder is an integrated unit consisting of Live Bottom Bin, integral vibrating nozzle with adjustable gate, and a constant speed continuous belt. Bin discharge is through a vibrated nozzle, available in widths from 1 to 6 inches, onto a 7 inch wide belt. Maximum feed rate is 75 cubic feet per hour.



Type LBB Live Bottom Bin Belt Feeder

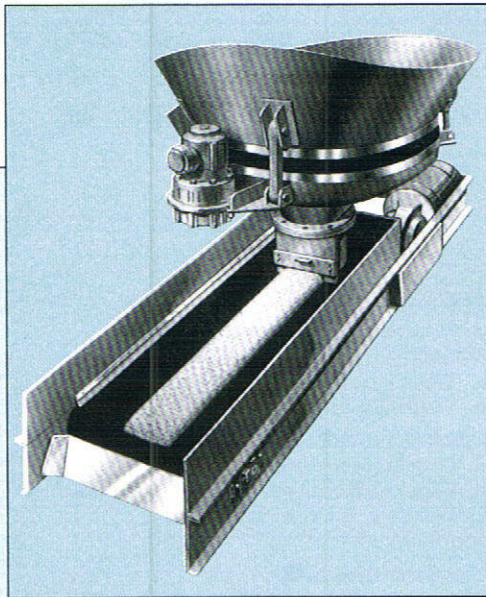
A precision slide gate with micrometer adjustments gives the LBB feeder a normal operating range of 20:1. A greater range is possible through simple sprocket changes on the constant speed belt drive. Feed ranges of 100:1 are possible with one unit.

Variable speed drives on the feed belt are also available.

Type HD Belt Feeder

Heavy Duty (HD) belt feeders do not have an integrated bin and vibrated bin bottom. They are designed to accommodate any size Vibra Screw Bin Activator, Live Bin or Live Bottom Bin. Three HD models provide maximum feed rates of 400, 1200 and 2400 cubic feet per hour. Belt widths are 12, 18 and 36 inches.

Variable speed DC drive is standard.

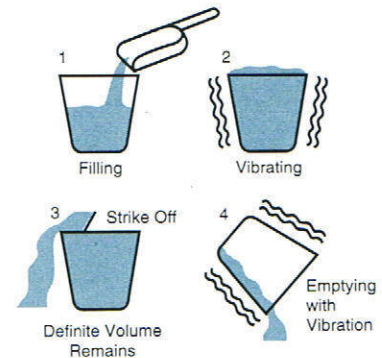


Type HD Heavy Duty Belt Feeder

Principles of Volumetric Feeding

Volumetric Feeding can be compared with the constant filling, leveling and emptying of containers of identical size, at a constant rate under conditions that assure each will contain the same quantity of material.

If each container is vibrated during filling and leveled or struck off across the top, air pockets will be eliminated. This assures constant volume and weight.



This is analogous to the operating principles of Vibra Screw Volumetric Belt Feeders when material is deposited on the belt through the vibrated discharge nozzle. When provided with a constant supply of material, the nozzle is continuously filled to a definite volume.

The three sides of the nozzle, the belt and the wall of material at the discharge gate determine the volume. Strikeoff occurs at the top of the gate opening. The height of the wall of material is determined by the size of the gate opening. Take-away rate is determined by belt speed.

The Vibra Screw Guarantee

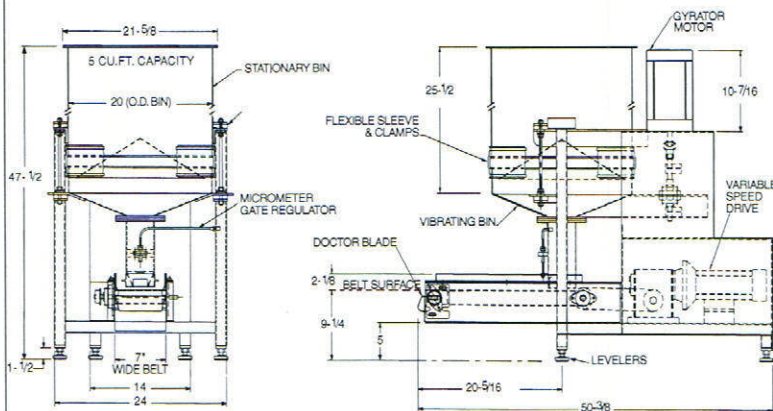
No time limits. No conditions.

If your Vibra Screw equipment doesn't perform in the service for which it was sold, we'll refund your money.

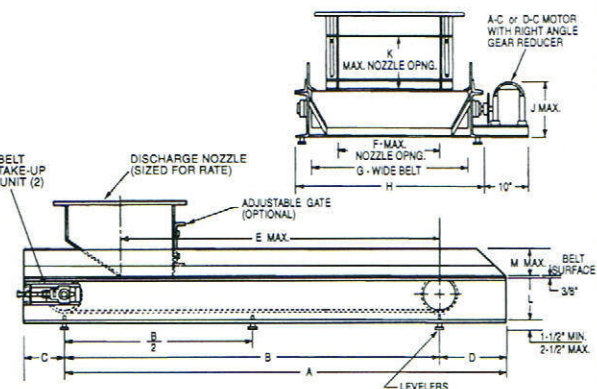
Ask any other equipment manufacturer to put that in writing.

VOLUMETRIC BELT FEEDERS

Specifications - Type LBB



Type HD



Type HD Dimensions inches (mm)

Model	A	B	C	D	E	F	G	H	J	K	L	M
400	50 (1270)	36 (914)	4 1/2 (114)	9 1/2 (241)	34 (863)	8 (201)	12 (305)	16 1/2 (419)	10 1/2 (267)	4 (102)	6 (152)	4 (102)
1200	70 (1778)	54 (1372)	6 (152)	10 (254)	52 (1321)	12 (305)	18 (457)	23 (584)	11 1/2 (292)	6 (152)	8 (201)	4 (102)
2400	96 (2438)	72 (1829)	9 (229)	15 (381)	70 (1778)	30 (762)	36 (914)	41 3/4 (1060)	12 1/2 (318)	12 (305)	10 (254)	9 (229)
4800	114 (2896)	96 (2438)	10 (254)	18 (457)	94 (2388)	40 (1016)	48 (1219)	54 3/8 (1381)	20 3/8 (518)	12 (305)	12 (305)	9 (229)

CONTACT MATERIALS

- a. Carbon steel
- b. 304 stainless steel
- c. 316 stainless steel

EXTERNAL CONSTRUCTION

Carbon steel

COATINGS

Standard external

- a. Epoxy paints
- b. Corrosion resistant paints
- c. Customer-specified special paints, colors

Standard internal

- a. Rust preventive coating
- b. Carbon steel contact surfaces
- c. Stainless, uncoated

Optional internal

- a. Nozzle and doctor blade only,
- b. Teflon coatings (DuPont), as specified

BELT MATERIAL

Standard,

3-ply reinforced 1/8" thick Neoprene

Optional,

- a. White food grade Neoprene or Hycar
- b. Teflon coated Hycar

BELT SUPPORT

- a. Carbon steel frame
- b. Sealed outboard ball bearings on pulleys
- c. Neoprene Skirtboards

DRIVES

Standard, Type LBB

Single motor for belt drive and vibration, 230-460/3/60, chain and sprocket drive.

Optional, Type LBB

- a. Variable-speed DC motor.
- b. Explosion-proof motor

Standard, Type HD

DC motor mounted on gear reducer, SCR controller (louwered enclosure), manual potentiometer control for belt speed

Optional, Type HD

Control modified to accept external signals 1-5 vac, 4-20 ma., 10-50 ma.

- a. Constant speed motor
- b. Explosion proof motor
- c. Special motors

DISCHARGE NOZZLE

Standard, Type LBB

Carbon or stainless steel to match supply bin. Micrometer gate adjustment, direct reading indicator.

Standard, Type HD

Carbon or stainless steel to match supply bin. Fixed outlet.

Optional, Type HD

Manual adjustable gate for constant speed drive.



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