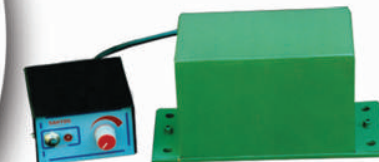


Vibrators
Vibratory
Equipments

VIBRANT®

VIBRANT®



Company Profile

We are a GOOD EARTH group company engaged in manufacturing and marketing of Vibratory equipments, Chemical and Pharmaceutical Equipments, Packaging Equipments, Flexible Shaft Drive, Tube Cleaners and Vibratory Stress Relieving Equipment in India.

We are a 35 years old company started with manufacturing of Flexible shafts and Flexible Shaft machines. Since then the company has never looked back and due to continues develop, as per customer's requirements, this company has developed into a multi product. company catering to five major industries sections that is, Pharmaceuticals and Chemicals, Packaging, Vibrators and Vibratory Equipments, Drain and Tube Cleaners and Machine tools & Fabrication.

To Support our Activities, the group owns about 3500 Sq. Ft. of manufacturing premises and about 1000 sq. ft. of administration and marketing offices in the financial capital of India, Mumbai. The company is financially very sound and has qualified and trained technical work force.

Vibrators

ROTARY ELECTRIC VIBRATOR
ELECTRO MAGNETIC VIBRATORS

Vibratory Feeder & Screen

ELECTRO MAGNETIC VIBRATORY FEEDERS
ELECTRO MECHANICAL VIBRATORY FEEDERS
VOLUMETRIC VIBRATORY FEEDER
BOWL FEEDER (Part Feeder)
VIBRATORY GYRO SCREEN (SIFTER)
LINEAR VIBRATING SCREEN

Vibratory Tables & Packers

ELECTRO MAGNETIC VIBRATING TABLES
ELECTRO MECHANICAL VIBRATING TABLES

Vibration Testing & Simulation

PACKAGE & JOLT TESTING
VIBRATION SIMULATOR

Other Vibratory Equipment

CIRCULAR BOWL FINISHING
RECTANGULAR BOWL FINISHING
CHECK JOGGER AND SPECIAL PURPOSE VIBRATORY EQUIPMENT

ROTARY ELECTRIC VIBRATOR

Foot Mounting



Vibrators

Flange Mounting

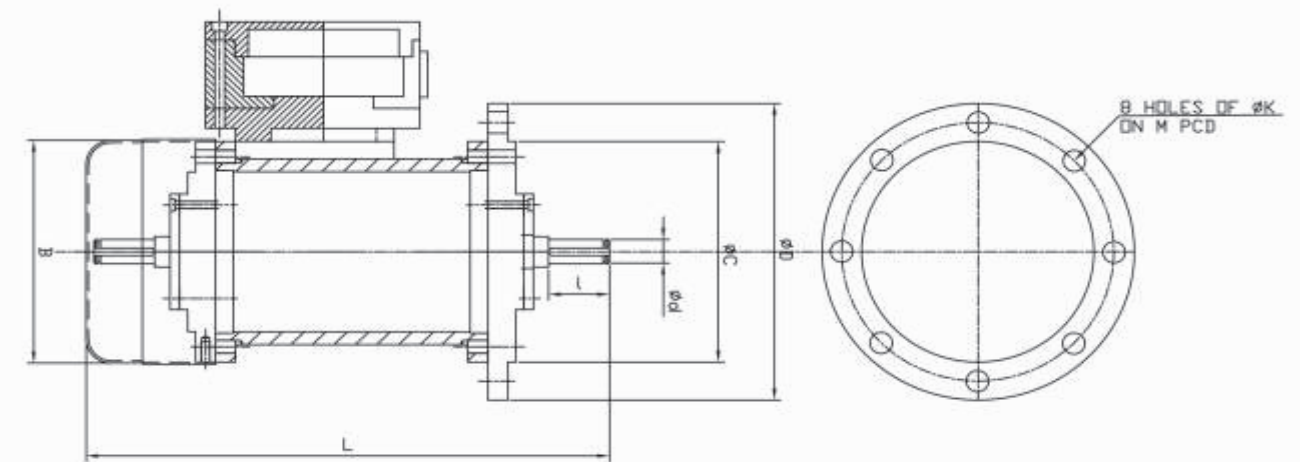


Construction features

- **Fully enclosed** construction is suited for use in industrial environment or outdoor applications.
- **Continuous Duty** design allows operation at maximum force setting in the worst environments, without the aggravation of periodic shut down.
- **Terminal box & Cable** designed to withstand vibration, dust & humidity. The terminal box itself is packed with a specially developed compound which is non hardening and has high adhesion to protect the motor leads.
- **Long service life** is ensured through careful selection of highest quality bearings
- **Completely** adjustable force output is accomplished with a simple mechanical adjustment of the eccentric weights.

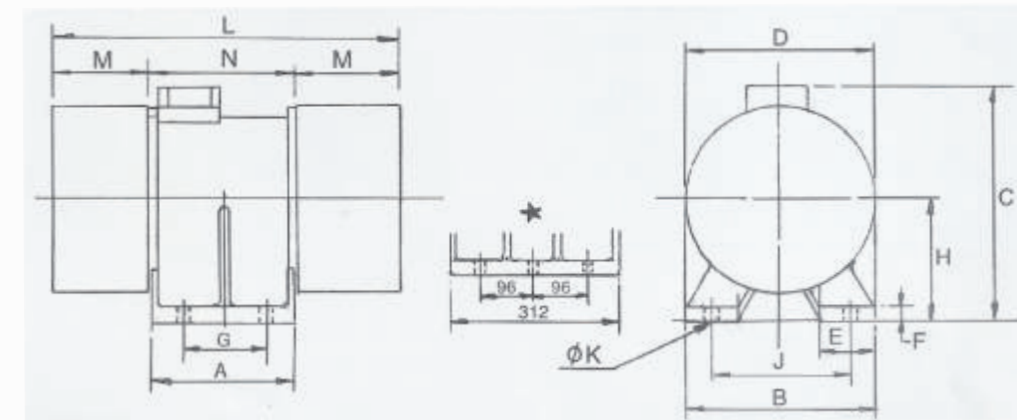
VIBRATOR	POWER		VPM	Force	Slab Load	Amplitude	Slab Load	Amplitude	Slab Load	Amplitude	Slope Load
MODEL	HP	KW		N	Kg	mm	Kg	mm	Kg.	mm	Kg.
EV 31162	0.1	0.08	2800	600	30	-	-	-	-	-	500
EV 3182	1/8	0.093	2800	1323	52	0.3	22	0.7	15	1	1350
EV 3142	1/4	0.187	2800	2545	98	0.3	42	0.7	30	1	2600
EV 3122	1/2	0.37	2800	5089	196	0.3	84	0.7	60	1	5200
EV 3342	3/4	0.56	2800	7633	295	0.3	126	0.7	90	1	7790
EV 3112	1	0.75	2800	10178	395	0.3	170	0.7	120	1	10380
EV 3322	1.5	1.1	2800	15267	595	0.3	256	0.7	180	1	15580
EV 3212	2	1.5	2800	20356	790	0.3	340	0.7	240	1	20770
EV 3312	3	2.2	2800	30534	1200	0.3	515	0.7	350	1	31160
EV 3512	5	3.7	2800	50890	2000	0.3	865	0.7	590	1	51930
EV 3712	7	5.2	2800	71246	2800	0.3	1200	0.7	825	1	72700
EV 31164	0.1	0.08	1400	600	30	-	-	-	-	-	500
EV . 3184	1/8	0.093	1400	1323	60	1	40	1.5	30	2	1350
EV 3144	1/4	0.187	1400	2544	120	1	80	1.5	60	2	2595
EV 3124	1/2	0.37	1400	5089	238	1	158	1.5	115	2	5190
EV 3114	1	0.75	1400	10178	480	1	320	1.5	235	2	10380
EV 3214	2	1.5	1400	20356	950	1	640	1.5	475	2	20770
EV 3314	3	2.2	1400	30534	1410	1	940	1.5	710	2	31150
EV 3514	5	3.7	1400	50890	2330	1	1560	1.5	1180	2	51900
EV 3146	1/4	0.187	960	2473	242	1	120	2	80	3	2520
EV 3126	1/2	0.37	960	4947	496	1	245	2	160	3	5050
EV 3116	1	0.75	960	9895	980	1	490	2	326	3	10100
EV 3216	2	1.5	960	19790	1960	1	980	2	650	3	20190
EV 3316	3	2.2	960	29680	2940	1	1470	2	980	3	30280
EV 3516	5	3.7	960	49000	4830	1	2410	2	1610	3	50000

DIMENSIONS FOR FLANGE MOUNTING VIBRATORS

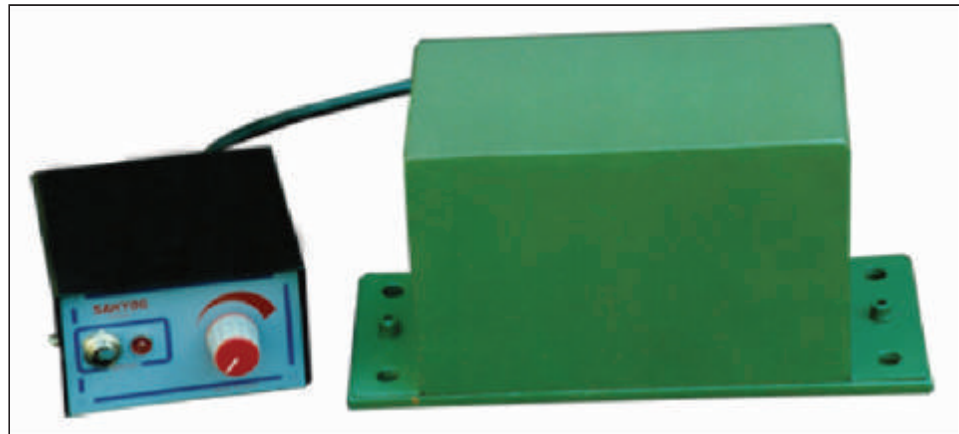


Type	B	C	D	K	M	L	d	I
87V	--	106	150	11	130	260	12.7	30
105V	150	145	195	14	170	410	16	40
140V	196	190	260	19	228	510	22.2	50
80V	230	230	300	19	265	570	30	60
210V	285	275	355	19	315	735	35	
258V	330	330	415	21	375	885	45	

DIMENSIONS FOR FOOT MOUNTING VIBRATOR



TYPE	A	B	C	D	E	F	G	H	K	L	M	N	J
105H	165	166	200	150	44	15	100	85	13	410	120	170	125
140H	166	214	270	196	63	22	185	125	17	510	170	170	165
180H	212	230	300	230	60	20	130	135	17	570	175	220	180
210H	250	265	355	285	75	24	140	165	21	735	240	255	205
258H	312	330	387	330	100	30	96+96 =192*	175	26	885	280	325	260

VIBRANT[®]**ELECTRO MAGNETIC VIBRATORS**

VIBRANT Electromagnetic vibrators are used for

- ◆ Vibrating Bins & Hoppers for smooth flow of material.
- ◆ Vibrating chutes to ensure steady flow of material.
- ◆ Vibrating sieve (screen), to sieve material of different sizes at controlled rate.
- ◆ vibrating containers to increase their net weight content.
- ◆ compacting materials to eliminate blow holes.

The amplitude of these vibrators can be varied over a wide range by the controller supplied with the vibrator. This enables uninterrupted flow of material under varying conditions. These vibrators, vibrates at a frequency of 3000 VPM and are designed for continuous operation.

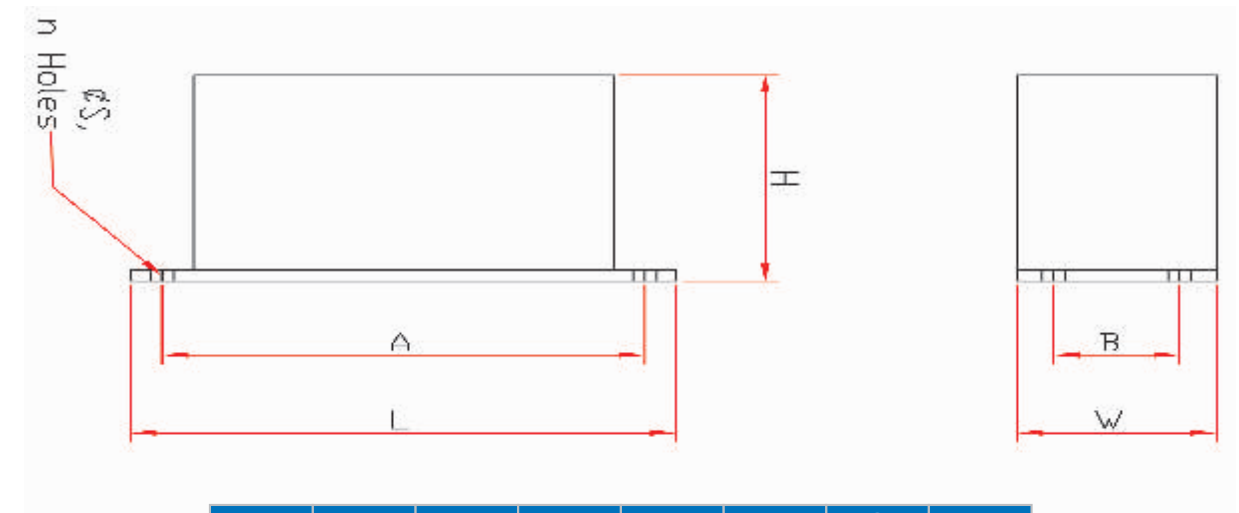
The proper selection of vibrator depends on many factors:

- ◆ The purpose of vibrator i.e. flow the material, compact it or settle it.
- ◆ The weight of the material to be vibrated.
- ◆ The characteristics of the material.
- ◆ The design of the hopper & its installation in the system.

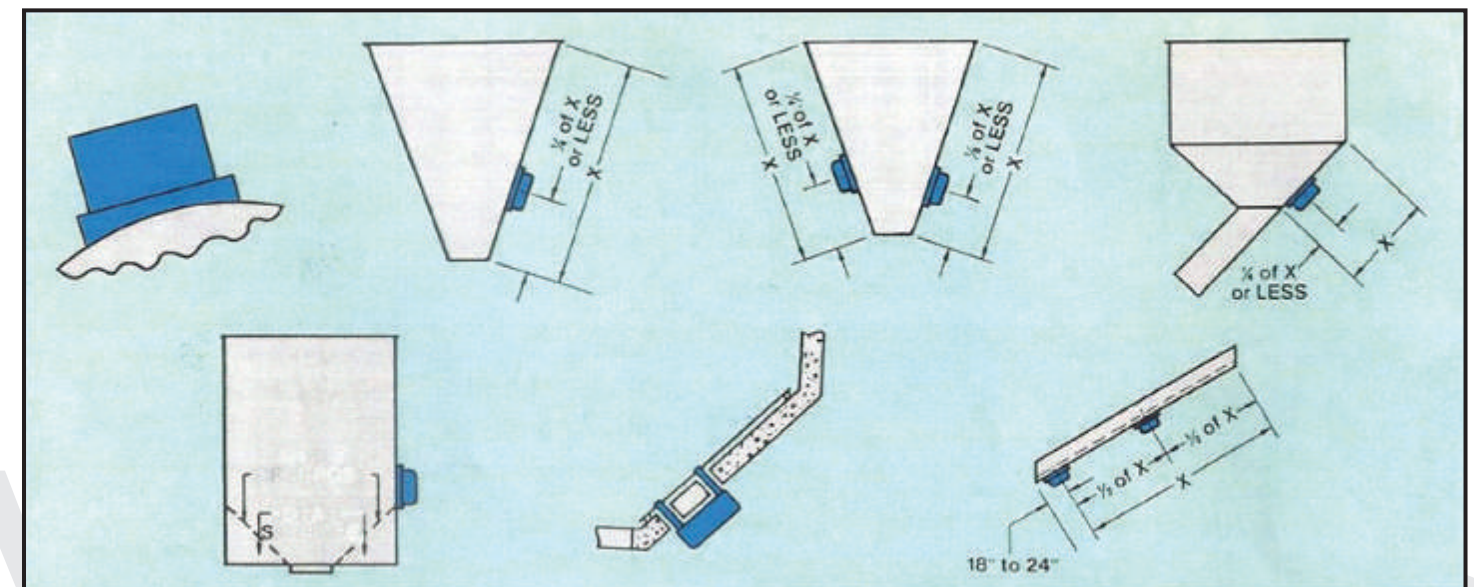
The general selection chart for hopper is given in the following table. The size of the vibrator depends on the wall thickness of the hopper/bin. The number of vibrators to be used depends on the capacity of the hopper.

SELECTION TABLE

Vibrator	Capacity of hopper	Wall thickness of hopper (mm)		Power Consumption
Model	Cu. Mt.	Normal	Max	Watts (230 Volt)
EM 30	0.1	0.8	1.2	30
EM 50	0.25	1.0	2	50
EM 100	0.5	1.5	3	100
EM 200	1.0	3	6	200
EM 300	2.0	6	8	300
EM 500	3.0	7	10	500

DIMENSIONS FOR ELECTRO MAGNETIC VIBRATORS

Type	L	W	H	A	B	S	n
EM30	180	80	95	160	50	9	1
EM50	260	95	118	230	60	11	1
EM100	260	95	148	230	60	11	4
EM200	472	125	225	445	95	11	4
EM300							
EM500							

APPLICATION AND MOUNTING

The most ideal installation of vibrator is at 1/4 or 1/3 of its slope length of hopper from the discharge. If more than one vibrators are required to be installed on one hopper they should be equally apart and should be connected in the same phase of supply.



Vibratory Feeder & Screens

ELECTRO MAGNETIC VIBRATORY FEEDERS

The electromagnetic design & rugged construction of **VIBRANT** Feeders offer unparalleled durability and reliability. There are no mechanical parts such as gears, cams, eccentrics or bearings to require lubrication and eventually wear out.

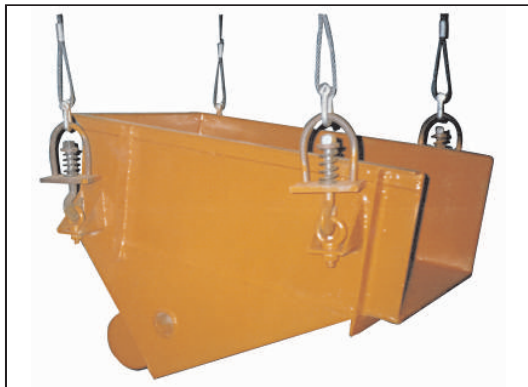
A Vibratory Feeder is a volumetric flow device. With all **VIBRANT** Feeders a controller is provided to enable the operator to control the rate of flow of material just by knob. All **VIBRANT** Feeder operates at 3000 VPM. The capacity of standard feeders are given in the table below and is based on handling dry sand, or coarse material weighing 1600 kgs/m³. The capacity will reduce with lighter and or finer material and will increase with heavier material.

- Will handle hot or abrasive materials.
- Will handle fragile materials (Potato Chips etc.) without degradation.
- Smooth continuous through-no jamming of material.
- Can be easily enclosed even at transfer points.
- Can perform special operations i magnetic separation, heating, cooling, drying, etc.)
- Offers completely adjustable control of rate of flow of material.
- Minimum safety hazard to persons working on or near feeder. The electromagnetic design & rugged



Model	Trough Size W x L (mm)	Capacity* T/hr.	Power Watts
VVF-0	50 x 300	0.3	30
VVF-2	100 X 450	1	50
VVF-5	150 x 500	3	100
VVF-10	200 x 500	5	150
VVF-20	250 x 600	15	250

ELECTRO MECHANICAL VIBRATORY FEEDERS



Electromechanical vibrating feeders use vibratory motor to generate the excitation. There can be combination of one or two vibrator exciters depending on applications.

The feed rate may vary based on applications, material density, trough length & width and hopper design. These feeders are ruggedly constructed to reduce maintenance and increase efficiency.

The specification table shown below is only indicative: The power and the VPM will have to be selected based on application.

Model	Trough Size W x L (mm)	Capacity* T/hr.	Power Watts
VVF-20	450 X 900	20	185
VVF-50	600 X 1050	50	375
VVF-150	200 x 500	150	750
VVF-300	900 X 1800	300	1550

VOLUMETRIC VIBRATORY FEEDER

The Volumetric Feeder Machine feeds most dry bulk materials. Because of simple design and flexible control, are dependable and have exceptionally long service life.

VIBRANT Volumetric Feeder Machine includes four basic components: A supply hopper, hopper vibrator, vibrating feeder and support frame. The Volumetric Feeder Machines are supplied with electronic controllers to regulate the feed rate by varying the vibrating intensity of an electromagnetic feeder. Material depth can also be regulated by adjusting the opening between the hopper and the feeder trough. Timer are also provided for intermittent feed. Special controllers are also available for coarse and fine feeding along with load cell weighing mechanism.

Available in various models from few Kg to few Tons per hour capacity.



BOWL FEEDER (Part Feeder)

VIBRANT Bowl feeder drive unit when combined with custom-tooled bowls and the auxiliary equipments, provides the solution for the most difficult parts handling applications. These Bowl Feeder Drives are designed to handle a wide range of Bowls from light weight to heavy weight and from outside track to inside track. These drive units are designed for specific mass over it. These units are available with the controller, to give the operator additional control and flexibility over the output. Six different standard models are available to choose from. All Vibrant Bowl Feeder Drives are manufactured to suit counter clockwise bowls, however clockwise drives can also be provided. While ordering please specify the bowl feed direction.



VIBRATORY GYRO SCREEN (SIFTER)

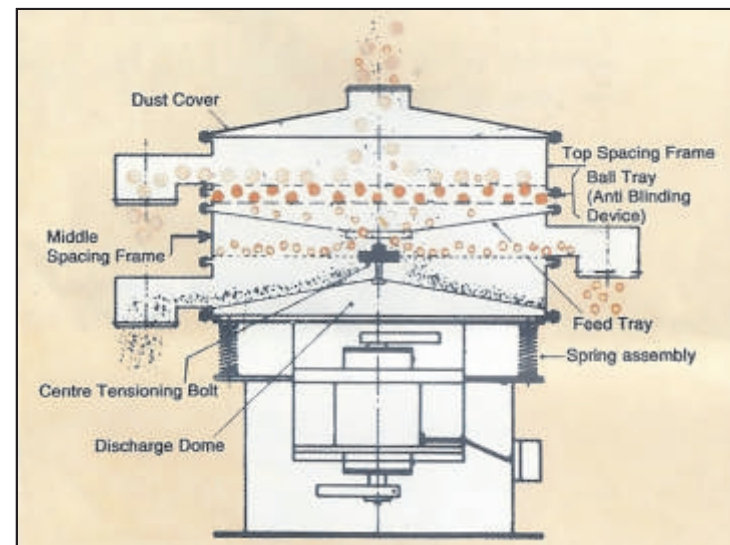


VIBRANT Vibratory Screens are widely used for Separation, Classification & Filter of Powder, Grains, Slurry, Liquid & many more.

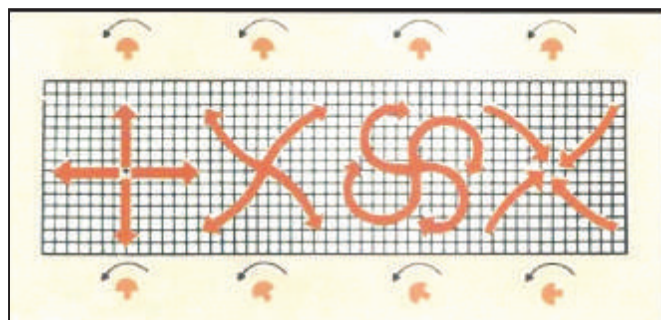
Applications

Pharmaceutical Industry, Paint Industry, Ceramic Industry, Food Industry, Paper Industry, Rubber Industry, Abrasive Industry, Breivary Industry, Chemical Industry, Plastic Industry, etc.

Model	Screen Size (mm)	Max. No. of Separation	Motor (Vibratory) HP
VS30	300	2	0.25
VS50	500	3	0.5
VS75	750	3	0.75
VS90	900	3	1.0
VS120	1200	4	1.5
VS150	1500	4	2.0



Typical flow patterns of material with different positions of centrifugal weights



Advantages

Over conventional separators are :

- Efficient separation
- High output
- Low power consumption
- Less space requirement & Maximum flexibility
- Low Maintenance
- Longer screen life
- No transmitted vibrations.

LINEAR VIBRATING SCREEN



VIBRANT Linear Vibrating Screen (LVS) is a multi-layer sieving equipment, which can be used to sieve material of different mesh according to the customer's requirements for various materials.

The operation is easy & convenient, replacement of screen process is simple. This equipment has wide range of application, mainly used in chemical industry, Pharma Industry, Mining, building materials, food, abrasive of granular, powder materials etc

Primary Structure

This equipment is mainly composed of screen frame, Vibration motor, Supporting device.

Screen frame: screen frame can be made by carbon steel or stainless steel according to customer's requirement
Vibration motor: two sets of horizontal foot mounted vibration motors are mounted on the equipment as vibration source. Combined they produce Linear force required for screening

Supporting device: supporting device is made of supporting springs and supporting frame. The Frame is made up of structural steel for rigidity.

Working Principle

Two vibrator motors when rotated in opposite direction, produce linear motion. The screen frame supports four springs to produce reciprocating linear motion under the vibration force generated by the motors. The vertical component of the vibration lifts the material while horizontal component of vibration feeds the material forward, and assumes a parabolic path. In the process, the material which is smaller than screen mesh can go through it, so as to achieve the required classification

Feature:

Heavy Duty, Low energy consumption, high efficiency, easy maintenance & Rigid

Model	Screen Size (mm)	Layer	Power (KW)	Vibrating Frequency (RPM)	Amplitude (mm)	Weight (kg)
LVS-520	500x200	1-4	2x0.37	960	3-4.5	350-460
LVS-525	500x2500	1-4	2x0.55			450-550
LVS-1020	1000x2000	1-4	2x0.75			820-950
LVS-1025	1000x2500	1-4	2x0.75			1180-1300

Vibratory Tables & Packers

ELECTRO MAGNETIC VIBRATING TABLES



VIBRANT vibrating Tables are designed to settle and compact dry material in various types of containers. Their application provides either a sizable increase in the net weight of the containers or reduction in the containers size with subsequent saving in shipping and storage space.

VIBRANT Vibrating Tables are available in two types Electromagnetic & Electromechanical. The choice of the proper type and model depends upon the characteristics of the material or object being handled. Its reaction to vibration, the maximum weight to be handled and the application.

VIBRANT Electromagnetic Vibrating Tables are the most versatile and widely used Vibrating Tables. The high speed (3000vmp) of these tables, coupled with a controlled low-amplitude that does not exceed 1.0 mm linear vibration, produces a gentle settling action. Through that action the coefficient of friction of the material is reduced. As the particles settle, the entrapped air is more readily removed.

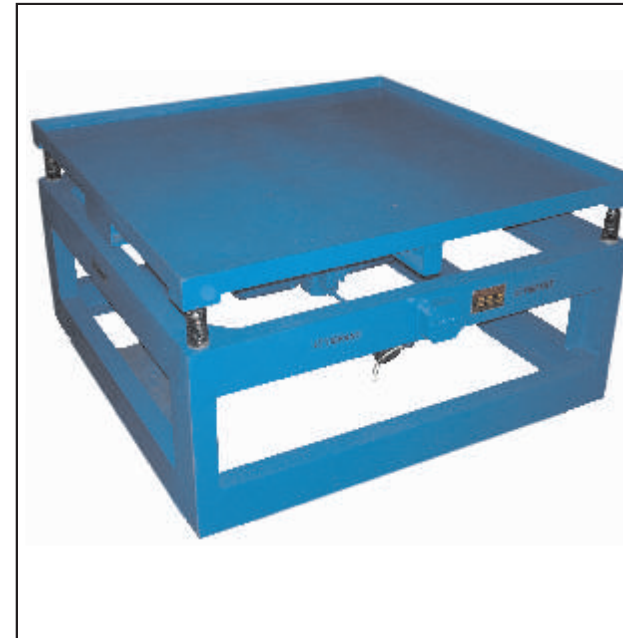
The amplitude of the vibration can be regulated to suit the characteristic of the material being handled by means of a separate control box. Models VT 100 through VT 500 are heavy duty industrial units designed with sturdy steel framework and decks. The model VT 50 is primarily used for laboratory and light duty packing applications.

Specifications

Model	Deck size (Inches)	Capacity to vibrate	Power*(watts)
VT-50	14x20	15Kg	50
VT-100	20x20	50Kg	100
VT-200	30x30	100Kg	200
VT-500	30x30	200Kg	500

***230 Volts, 50 Cycle, 1 Phase, Electromagnetic Vibrator.**

ELECTRO MECHANICAL VIBRATING TABLES



VIBRANT vibrating Tables are designed to settle and compact dry material in various types of containers. Their application provides either a sizable increase in the net weight of the containers or reduction in the containers size with subsequent saving in shipping and storage space.

VIBRANT Vibrating Tables are available in two types Electromagnetic & Electromechanical. The choice of the proper type and model depends upon the characteristics of the material or object being handled. Its reaction to vibration, the maximum weight to be handled and the application.

The vibratory motion of VIBRANT Electromechanical Vibrating tables is particularly suited for setting granular to coarse materials. It is also very effective for handling wide range of products & applications.

Electromechanical Vibrating Tables are available in different models with maximum capacities up to 1000 Kg. & more Electromechanical vibrators, with their low frequency and high amplitude, produce an elliptical vibratory motion. These Vibrating Tables are ideally suitable for all the applications mentioned in the front.

The rotary vibrator drives are studily constructed and incorporate extra-heavy duty bearings for extended service life. The drives are totally enclosed & dust tight.

Specifications

Model	Deck size (Inches)	Capacity to vibrate	VPM	HP
VT-3144	24x24	100Kg	1400	0.25
VT-3144	36x36	200Kg	1400	0.5
VT-3114	36x36	400Kg	1400	1
VT-3214	48x48	1000Kg	1400	1.5

*** 440 Volts, 3-Phase, 50 Cycle, Rotary Vibrator**

Vibration Testing & Simulation

PACKAGE AND JOLT TESTING



The vibration simulator machine is designed to scientifically simulate the vibrations and jolts subjected to various filled containers during the transportation, within the laboratory. The machine is based on the guidelines provided an ASTM D-999: TAPPI T-S17-pm: and IS702S (part II).

The packages (containers) intended for transportation of goods is required to fulfill the primary function of physical protection to the content within it. Normally the transportation is by road rail, sea and air- in singular or in various combinations of these modes. Due to these the package is subjected to the various vibrations and jolts of varying intensities. It is very difficult to simulate these vibrations in totality, however, the machine is designed to simulate these conditions closely in the laboratory. The vibration test provides means to determine in advance, under standard laboratory conditions, how a filled package will fare in a given distribution system. This test is used to assess the performance of containers only, in terms of its strength and the protection that it provides to the content, when subjected to the vibrations during the transportation.

The Machine

The machine is rigidly fabricated from MS structure. The upper tabletop is suspended for vibration by bearing blocks. The fixed amplitude of 25mm is generated using cam assembly. The frequency of vibration can be varied using the panel box from 2 Hz to 10 Hz. The machine can generate the vibrations in three modes viz.

1. In phase vibrations, that is. both the cam assembly is in phase and the tabletop ends moves simultaneously.
2. 90 Deg out of phase, that is the cam assembly are 90 degrees out of phase with each other. One end of the table moves 90 degrees out of phase with respect to the other.
3. 180 Deg out of phase, that is. the cam assembly are totally out of phase. One end of the table moves 180 degree out of phase with respect to the other, so that the lowest point of the one side will coincide with the highest point of the other side of the table.

VIBRATION SIMULATOR



The equipment basically consist of two parts.

1. Vibration exciter
2. The control unit

Vibration exciter Generates the sinusoidal vibrations of varying frequency when fed with the signal through control unit. The vibrating amplitude can also be varied by changing the vibrating force. The job to be tested is mounted on the exciter and is vibrated, as per the standard specifications. The equipment, along with the control unit, in general, have following specifications :

Reliability & Fatigue Testing Equipment

Applications

- Electronic & Electrical Instruments
- Electronic parts, components and PCBS
- Automobile Industries
- Packaging Industries
- Portable Mechanical Instruments
- Simulation of transport conditions in laboratory.

Specifications

Frequency Range	5 Hz.TO 100 Hz.sine wave
Testing Mode	Manual / Auto (Linear,Sweep,Random,Octave)
Display (Digital)	Frequency,Displacement,Velocity,Acceleration
Timer	0 To 1 Hour
Reset Button	To stop the sweep cycle at any given instance
Output Signal	AC or DC corresponding to the parameter (Disp,Vel,accn) for further processing
Input Signal	Trough sensor and cable
Protection	Vibrator over load, under voltage,over voltage etc
Indication	Trip.Timer (ON / OFF)

VIBRATORY FINISHING EQUIPMENT

CIRCULAR BOWL FINISHING



Virtually any machining operation, turning, milling, facing, boring, drilling, shaping, punching, etc. leaves burr or sharp edge on the component. If these components are manufactured in bulk on production basis, they need fast deburring techniques. The solution is

VIBRANT has following major advantages over conventional Barreling Tumbling :

- The process is much more faster due to 100% cycle time utilization.
- The motion is gentle, so delicate parts can be processed without any distortion.
- Easy and Fast loading and unloading with possibility of stage inspection for better overall process control.
- Finishing chemicals can be recirculated to achieve the best results. VIBRANT is used for deburring. Descaling. Derusting. Radiusing. Finishing Brightening. Polishing etc.

Specifications

Model (Ltrs.)	Bowl Vol. Motor (H.P)	Vibratory
CBF 15	15	0.5
CBF 30	30	1.0
CBF 100	100	1.5
CBF 180	180	2.0
CBF 250	250	3.0
CBF 430	430	5.0
CBF 625	625	5.0

Principle of Operation

Cyclone vibratory finishing equipment uses a bowl mounted on a sturdy frame. The components to be processed are loaded into the bowl along with the special deburring ceramic media. The bowl along with the material inside is vibrated at specific frequency, amplitude and waveform. This in turn generates spiral motion of media and material which in turn finishes the material.

RECTANGULAR BOWL FINISHING

VIBRANT replaces expensive hand deburring with inexpensive automated finishing. Can de-bun. de-grease. clean and polish. It can be used for aggressive cutting or fine polishing. With proper selection of compound and media a limitless variety of finishes can be produced.

Whether you are manufacturing parts from steel alloys, ceramic or wood. **VIBRANT** will save you valuable man-hours. **VIBRANT** has been designed with the small shop in mind, allowing you to own professional finishing equipment at an affordable price. At the same time, our machine is suitable for large production shops.

- Ideal for long parts & jew-ellery
- Ideal working height
- All welded steel construction
- Seamless polyurethane liner, optional
- Compact dimensions to save valuable floor space
- Affordable price



CHEQUE JOGGER



Check jogging is often overlooked in high-volume check scanning operations; however, it can have a tremendous impact in lowering costs and improving results. Proper alignment of larger batches of checks can reduce operator keying due to skewed items and jammed items in the track, and can improve the overall throughput of any check scanner. The VCJ-04 is an inexpensive device that will provide an immediate return on investment for your high-volume check scanning environment.

The use of Check Joggers in item processing will reduce the number of check pro-cessing errors in high speed check readers and sorters. Check joggers are a basic key component to running successful batches of items through any size check scanner. Every check processing center should have a check jogger installed by each check reader/sorter.

Features

- Fast and efficient operation with ad-justable control
- Advanced electromagnetic design (eliminates overheating concerns)
- Proven Reliability
- Simple Operation - No Special Train-ing Required
- Self Cleaning

Applications

- Banking (Check Joggers)
- Mailroom and Post Offices
- Newspapers
- Printing and Graphic Arts
- Other Industries

Vibrators


GOOD-EARTH
ENGG. INDUSTRIES