POWTEK

Top Quality
in
Pneumatic Vibrators

MAIN ADVANTAGES

Excellent **power** to weight ratio
High quality **aluminum housings**, elaborate surface tooling
Corrosion resistant and **easy to clean**
Low air consumption, frequency controllable by air pressure.
Sturdy and simple construction for **long life** and low maintenance costs
Wide range covering over **70 models**
High availabilty of stock and **fast delivery**
Explosion proof.
Higher temperature ratings than comparable vibrators.
State of the Art Swiss Design

APPLICATIONS		
FOOD	BAKERY PRODUCTS	PHARMACEUTICAL
POWDERED MILK	COFFEE	PLASTIC
CANNING AND PRESERVE	BREWERIES & DISTILLERIES	CHEMICAL PRODUCTS
CONFECTIONERY	PULP & PAPER	OIL REFINERIES

K BALL ALUMINUM VIBRATOR

DESCRIPTION

Manufactured with a rustproof extruded aluminum body fitted with hardened steel races on which a steel ball rotates.
Nylon endplates are located on either side to contain the ball and prevent the entry of dust and water, thus allowing the unit to be used in dusty or wet environments. Inlet and exhaust port have standard pipe threads, allowing the exhaust air to be piped away, ensuring that no restriction is imposed on exhaust air. Four mounting holes are provided, two vertically and two horizontally for handling difficult mounting positions.
Max temperature: 210^0 F
Coating: Stove-enamelled cream-gray epoxy.

APPLICATIONS

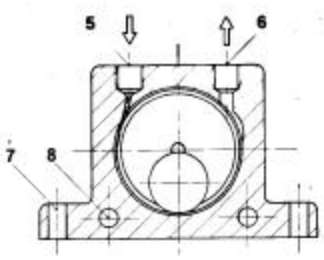
Series K, which is small in overall size, pneumatic ball vibrators frequency can be regulated by adjusting the flow of air to the vibrator making them useful for:

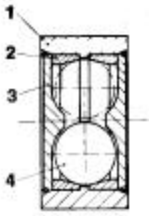
Assisting the flow of material from chutes and hoppers

Preventing bottles and similar objects from locking together and blocking conveyor systems

Compaction of material in containers or molds

Separation of various sizes of material on screens

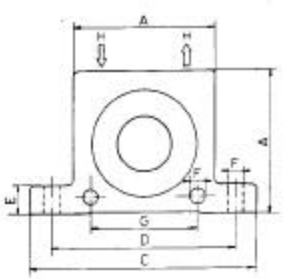




1. Extruded aluminum alloy body
2. Hardened ground steel alloy races
3. Nylon endplates
4. Hardened lapped ball
5. Air inlet
6. Air exhaust
7. Base mounting holes
8. Lateral mounting holes

PERFORMANCE DATA

MODEL	FREQUENCY			FORCE OUTPUT			AIR CONSUMPTION		
	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI
	vpm	vpm	vpm	lbs	lbs	lbs	cfm	cfm	cfm
K 8	25000	31000	35000	29	58	81	2.9	5.1	6.9
K 10	22000	28000	30000	56	106	160	3.2	5.3	7.1
K 13	15000	18000	24000	72	124	196	3.3	5.6	7.9
K 16	13000	17000	19000	101	180	248	4.3	7.1	9.9
K 20	10000	14000	16000	162	275	387	4.6	8.1	12
K 25	9000	12000	14000	209	353	461	5.6	10.2	16
K 30	8000	10000	12000	340	556	722	7.6	13.2	20
K 36	7000	9000	10000	464	709	911	9.2	16.8	24



DIMENSIONS

MODEL	A	Width	C	D	E	F	G	H (BSP)	Weight (lbs)
K 8	1.97”	0.79”	3.38”	2.68”	0.47”	0.27”	1.57”	1/4”	0.29
K 10	1.97”	0.79”	3.38”	2.68”	0.47”	0.27”	1.57”	1/4”	0.29
K 13	2.56”	0.94”	4.45”	3.54”	0.63”	0.35”	1.97”	1/4”	0.57
K 16	2.56”	1.06”	4.45”	3.54”	0.63”	0.35”	1.97”	1/4”	0.66
K 20	3.15”	1.30”	5.04”	4.09”	0.63”	0.35”	2.36”	1/4”	1.17
K 25	3.15”	1.50”	5.04”	4.09”	0.63”	0.35”	2.36”	1/4”	1.39
K 30	3.94”	1.73”	6.30”	5.12”	0.79”	0.43”	3.15”	3/8”	2.49
K 36	3.94”	1.97”	6.30”	5.12”	0.79”	0.43”	3.15”	3/8”	2.95

GT GOLDEN TURBINE VIBRATOR

How It Works

An aluminum wheel with brass weights punched in develops the eccentric force.

It spins on a shaft connected to the endplate and supported by two bearings.

Features

Noise level never exceeds **75 dba**.

Bearings come pregreased, **no lubrication** is required.

Bearings are **oversized** to dramatically increase vibrators' life.

Can be used at **temperatures** of up to **230^{0}F** *(280^{0}F for the GT4 & GT6)*

GT "S" models use unbalance weights of heavy metal *(instead of the standard brass)* that produces a **slower frequency** and a **higher amplitude**.

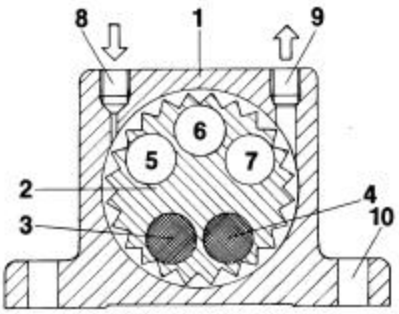
Design

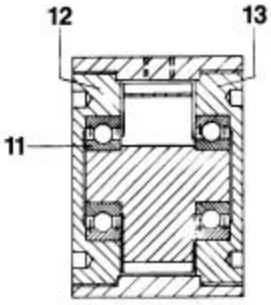
The vibration is produced by the centrifugal force of the positive and negative unbalanced moments in the rotor.

The rotor is supported on two heavy duty, prelubricated, matched shielded ball bearings. A special long life grease ensures a long working life.

The inner and outer raceways of the bearings are designed so that the bearings can be easily replaced using only a pin-wrench.

The endplates are fitted with right- and left-hand threads and are self-locking.





1. Extruded aluminum body
2. Hardened aluminum rotor.
3-4 . Brass weights.
5-6-7. Cavities giving negative moment.
10. Standard bolt holes.
11. Self lubricated bearings.
8. BSP tapped air inlet.
9. BSP tapped air exhaust.
12-13. Hard coated aluminum endplates

Benefits

17 sizes with force output ranging between 25 and1600 lbs.

No metal-to-metal contact reduces noise and wear.

Because vibrator life is determined primarily by the bearing life, regular replacement of the bearings can extend vibrator life indefinitely.

Aluminum body construction and absence of airline lubrication allows use in many special environment such as food, chemical and pharmaceutical industries.

Develops little or no heat and can operate under adverse conditions of grit, water, rust, heat and cold.

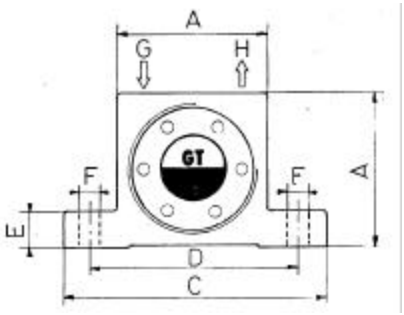
Will not rust in extremely humid conditions.

GT Vibrators produce a sinusoidal vibration that brings material much better into resonance than linear vibrators. Frequency can be adjusted by using a pressure or a flow regulator.

Turbine Vibrators are used to separate or compact materials.
One common application is to empty bins, silos and hoppers.
Although the result is feeding material, the job of the vibrator is first to separate a clogged product in order to free it.
Once it is freed, it will move just by gravity.

PERFORMANCE DATA

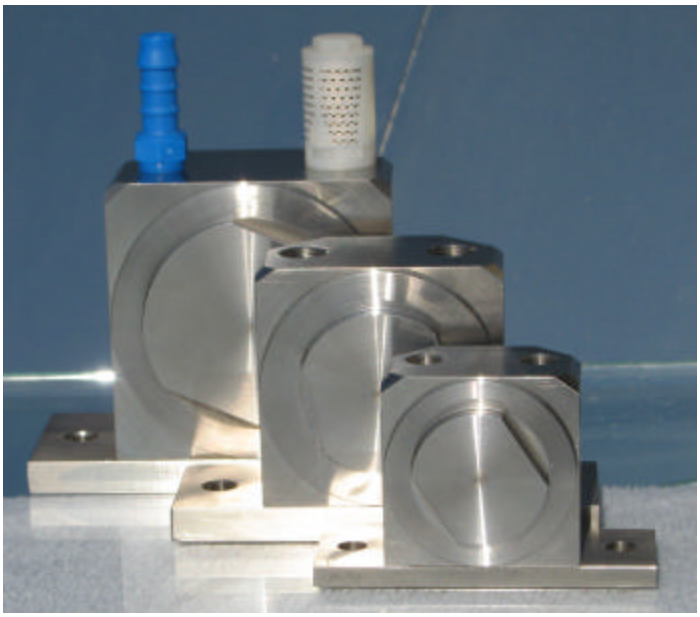
MODEL	FREQUENCY			FORCE OUTPUT			AIR CONSUMPTION		
	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI
	vpm	vpm	vpm	lbs	lbs	lbs	cfm	cfm	cfm
GT 4	14000	15000	16000	25	35	45	1.7	3	4
GT 6	11000	12000	13000	32	50	60	1.8	3	4
GT 8	35000	41000	45000	220	450	640	2	3	4
GT 10	27000	34000	37000	190	290	520	2	3	4
GT 10S	17000	23000	25000	140	260	440	2	3	4
GT 13	25000	29000	32000	310	530	830	4	7	10
GT 16	16000	21000	23000	290	450	700	4	7	10
GT 16S	11000	15000	17000	250	420	600	4	7	10
GT 20	16000	20000	23000	470	870	1200	6	12	16
GT 25	12000	16000	18000	450	780	1100	6	12	16
GT 25S	8000	11000	13000	500	800	1150	6	12	16
GT 30	12000	14000	16000	670	1100	1350	12	12	26
GT 36	7500	10000	13000	760	1150	1500	12	19	26
GT 36S	5000	6500	8000	800	1400	1650	12	18	26
GT 40	6500	8000	9500	1200	1650	2200	15	24	34
GT 48	5500	7000	8500	1300	1700	2350	15	24	34
GT 48S	N.A.	4500	6000	1250	1650	2700	15	24	34



DIMENSIONS

MODEL	A	Width	C	D	E	F	G(BSP)	H(BSP)	Weight (lbs)
GT 4	1.77”	1.17”	2.78”	2.27”	0.37”	0.28”	1/8”	1.8”	0.38 lbs
GT 6	1.77”	1.17”	2.78”	2.27”	0.37”	0.28”	1/8”	1.8”	0.38 lbs
GT 8	1.97”	1.30”	3.39”	2.68”	0.47”	0.28”	1/8”	1.8”	0.56 lbs
GT 10	1.97”	1.30”	3.39”	2.68”	0.47”	0.28”	1/8”	1.8”	0.56 lbs
GT 10 S	1.97”	1.30”	3.39”	2.68”	0.47”	0.28”	1/8”	1.8”	0.56 lbs
GT 13	2.56”	1.69”	4.45”	3.54”	0.63”	0.35”	1/4”	1/4”	1.28 lbs
GT 16	2.56”	1.69”	4.45”	3.54”	0.63”	0.35”	1/4”	1/4”	1.28 lbs
GT 16 S	2.56”	1.69”	4.45”	3.54”	0.63”	0.35”	1/4”	1/4”	1.28 lbs
GT 20	3.15”	2.17”	5.04”	4.09”	0.63”	0.35”	1/4”	1/4”	2.6 lbs
GT 25	3.15”	2.17”	5.04”	4.09”	0.63”	0.35”	1/4”	1/4”	2.6 lbs
GT 25 S	3.15”	2.17”	5.04”	4.09”	0.63”	0.35”	1/4”	1/4”	2.6 lbs
GT 30	3.94”	2.95”	6.30”	5.12”	0.79”	0.43”	3/8”	3/8”	5.1 lbs
GT 36	3.94”	2.95”	6.30”	5.12”	0.79”	0.43”	3/8”	3/8”	5.1 lbs
GT 36 S	3.94”	2.95”	6.30”	5.12”	0.79”	0.43”	3/8”	3/8”	5.5 lbs
GT 40	4.72”	3.26”	7.64”	5.99”	0.94”	0.67”	3/8”	3/8”	8.5 lbs
GT 48	4.72”	3.26”	7.64”	5.99”	0.94”	0.67”	3/8”	3/8”	8.5 lbs
GT 48 S	4.72”	3.26”	7.64”	5.99”	0.94”	0.67”	3/8”	3/8”	9.5 lbs

GT SS SANITARY TURBINE VIBRATOR



Features

All housing and parts in contact are in **Stainless Steel 316L**

Sanitary Finishing

There is **no paint** that can **flake off.**

Noise level never exceeds **75 dba**

Bearings come pre-greased, **no lubrication** required.

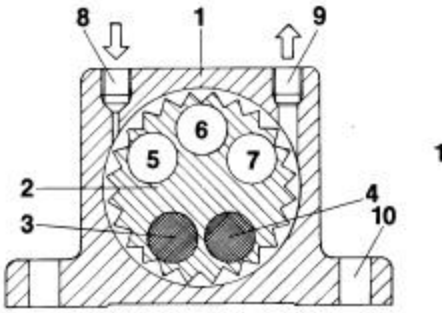
Max **temperature: 250^0 F**

Special High temperature series **GT-SS/HT** can reach up to **500^{0}F**

Design

The vibration is produced by the centrifugal force of the positive and negative unbalanced moments in the rotor.

The rotor is supported on two heavy duty, prelubricated, matched shielded ball bearings. Special long life grease ensures a long working life.



1. Stainless Steel 316L body
2. Hardened aluminum rotor.

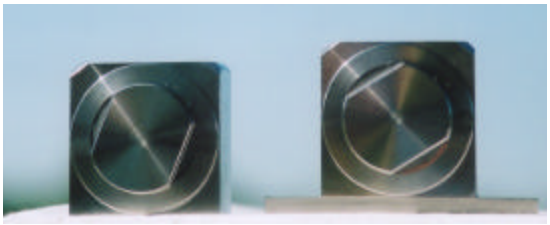
3-4 . Brass weights.

5-6-7. Cavities giving negative moment.

10. Standard bolt holes.

8. BSP tapped air inlet.

9. BSP tapped air exhaust.



Benefits

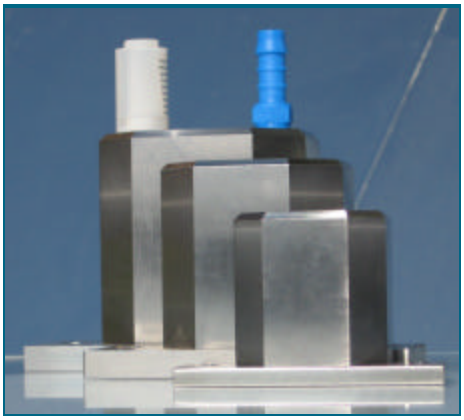
Stainless Steel body construction and absence of airline lubrication allows use in many special environments such as food, chemical and pharmaceutical industries.

Can operate under very adverse conditions such as grit, water, rust, heat and cold.

Will not rust in extremely humid conditions.

Withstands highly corrosive conditions.

No contamination. Being oil free, there is no oil mist which can be discharged in the surrounding air.



APPLICATIONS

With 316L construction these special vibrators are ideal for the most demanding conditions.

Environments

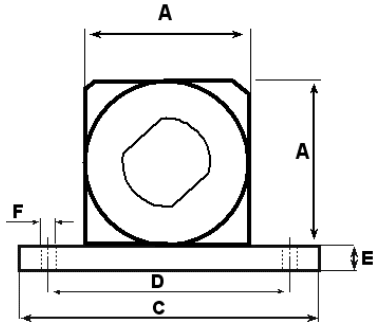
Contamination free
Corrosion free
Easy cleaning

Industries

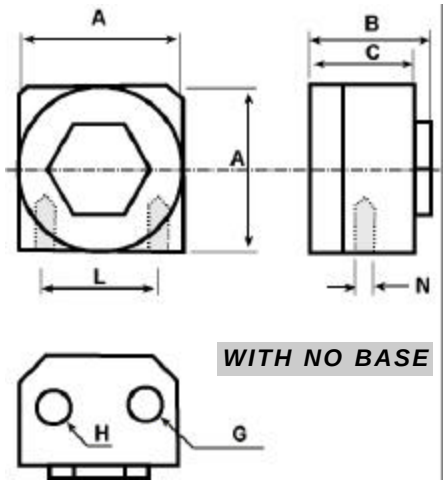
Food
Chemical
Pharmaceutical

PERFORMANCE DATA

MODEL	FREQUENCY			FORCE OUTPUT			AIR CONSUMPTION		
	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI
	vpm	vpm	vpm	lbs	lbs	lbs	cfm	cfm	cfm
GT 10 SS	27000	34000	37000	190	290	520	2	3	4
GT 16 SS	16000	21000	23000	290	450	700	4	7	10
GT 25 SS	12000	16000	18000	450	780	990	6	12	16



WITH BASE



WITH NO BASE

DIMENSIONS

MODEL	A	B	C	D	E	F	G / H	L	N	P	Weight
GT 10 SS	1.93”	1.18”	3.39”	2.68”	0.27”	0.28”	1/8”	1.42”	M 6	1.26”	1.5 lbs
GT 16 SS	2.52”	1.57”	4.33”	3.54”	0.39”	0.35”	1/4”	1.89”	M 8	1.53”	2.2 lbs
GT 25 SS	3.07”	1.97”	4.96”	4.09”	0.39”	0.35”	1/4”	2.36”	M 10	1.93”	4.0 lbs

FP - FPLF ALUMINUM PISTON VIBRATOR

DESCRIPTION

The FP and FPLF series pneumatic piston vibrators produce a linear vibration with adjustable amplitude and frequency.

FP series needs a standard airline **lubrication**
FPLF series is completely **lubrication free.**

The frequency is controlled by adjusting the air pressure.
A spring is used in the vibrator to assist starting.
Minimum operating pressure 30 PSI

FEATURES

The aluminum **body** is hard coated and it is **corrosion resistant.**

There is **no paint** to flake off.

The **power-to-weight ratio** of the unit makes it particularly efficient for feeder applications.

Explosion proof, light weight and compactness make these units ideal for most applications.

Easy to install and designed to work continuously under the most demanding conditions.

The FPLF, being lubrication free, discharges **no oil mist** into the atmosphere.

With proper muffler these units are very quiet and usually below **75 dBA.**

Can be used at **temperatures** up to **280^0 F**

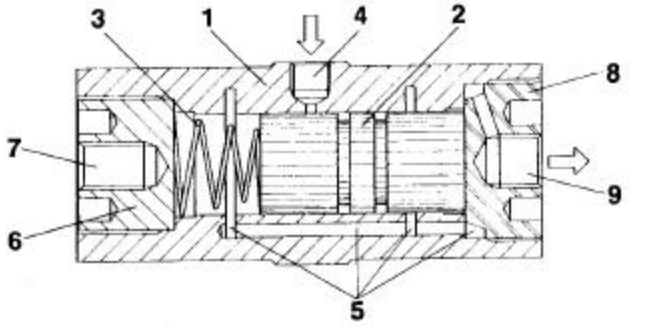
Nominal frequency **1800-9500 rpm**

Force Ouput **10 - 950 lbs**

PERFORMANCE DATA

	FREQUENCY			FORCE OUTPUT			AIR CONSUMPTION			NOISE
	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI	
MODEL	vpm	vpm	vpm	lbs	lbs	lbs	cfm	cfm	cfm	dBA
FP 12 S	6200	7800	9300	6	10	16	0.03	0.26	0.88	47-61
FP 12 M	5000	6000	6700	7.7	13	18	0.02	0.14	0.67	57-61
FP 12 L	4000	4800	5400	8	14	19	0.04	0.11	0.71	58-60
FPLF 12 M	5000	6000	6700	7.7	13	18	0.02	0.14	0.67	57-61
FP 18 S	5000	6400	7700	13	28	40	0.18	0.16	2.00	62-71
FP 18 M	4000	5000	5900	14	30	42	0.14	1.00	1.84	61-67
FP 18 L	3100	4000	4600	15	34	46	0.18	1.81	1.62	61-68
FPLF 18 M	4000	5000	5900	14	30	42	0.14	1.00	1.84	61-67
FP 25 S	3600	4300	5500	28	61	94	0.46	1.91	3.30	70-73
FP 25 M	3000	3800	4200	32	82	113	0.81	1.76	3.07	71-74
FP 25 L	2400	3100	3700	42	88	134	0.64	2.19	3.28	72-75
FPLF 25 M	3000	3800	4200	32	82	113	0.81	1.76	3.07	71-74
FP 35 S	3800	4700	5800	66	150	234	0.81	3.56	5.72	72-75
FP 35 M	3000	4000	4600	56	175	243	0.85	2.93	4.98	73-75
FP 35 L	2400	3100	3600	63	153	240	1.34	3.14	4.77	73-75
FPLF 35 M	3000	4000	4600	56	175	243	0.85	2.93	4.98	73-75
FP 50 M	1800	2300	2700	110	220	360	1.70	3.50	6.60	72-78
FP 60 M	1900	2400	2700	140	315	489	3.10	5.60	9.40	72-78
FP 95 M	1800	2400	2800	340	590	962	5.90	11.0	15.6	75-80

Thanks to truly low air consumption due to tight clearance between piston and housing, the FP-FPLF is one of the most efficient pneumatic vibrators available on the market.



1. Anodized aluminum alloy housing
2. Bronze piston
3. Starter spring
4. Air inlet
5. Sound absorbing exhaust system
6. Anodized aluminum alloy socket
7. Threaded base for mounting
8. Anodized aluminum alloy end cap
9. Air outlet

S stands for small amplitute

M stands for medium amplitude

L stands for higher amplitude

Construction

FP

Aluminum housing surface-hardened and corrosion resistant.

FPLF

Extra hard and Corrosion-resistant surface through aluminum oxide-generated by titaniferous electrolyte.

Maintenance guidelines FP

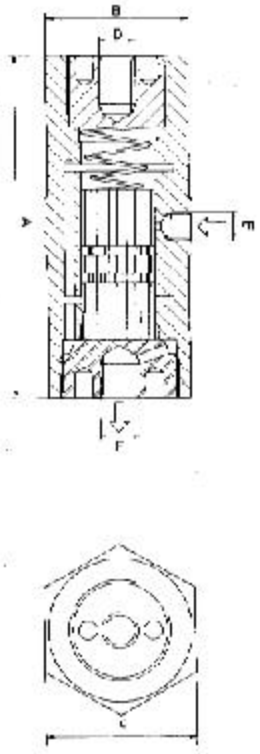
5-micron filter necessary!

The FP requires a lubricator is for longer life. Only high grade air motor oil is to be used.

The airline filter must be inspected and cleaned at regular intervals. Dirt or contaminated oil will slow down or stop the vibrator.

DIMENSIONS

MODEL	A	B	C	D MOUNTING	E (BSP) INLET	F (BSP) OUTLET	WEIGHT (lbs)
FP 12 S	2.80	1.22	1.34	M-8	1/8”	1/8”	0.32
FP 12 M	3.19	1.22	1.34	M-8	1/8”	1/8”	0.37
FP 12 L	3.70	1.22	1.34	M-8	1/8”	1/8”	0.45
FPLF 12 M	3.19	1.22	1.34	M-8	1/8”	1/8”	0.37
FP 18 S	3.19	1.57	1.65	M-10	1/8”	1/8”	0.62
FP 18 M	3.70	1.57	1.65	M-10	1/8”	1/8”	0.75
FP 18 L	4.29	1.57	1.65	M-10	1/8”	1/8”	0.9
FPLF 18 M	3.70	1.57	1.65	M-10	1/8”	1/8”	0.75
FP 25 S	3.86	1.89	1.97	M-12	1/8”	1/4”	1.17
FP 25 M	4.57	1.89	1.97	M-12	1/8”	1/4”	1.43
FP 25 L	5.35	1.89	1.97	M-12	1/8”	1/4”	1.74
FPLF 25 M	4.57	1.89	1.97	M-12	1/8”	1/4”	1.43
FP 35 S	3.86	2.28	2.56	M-12	1/4”	1/4”	1.86
FP 35 M	4.57	2.28	2.56	M-12	1/4”	1/4”	2.29
FP 35 L	5.53	2.28	2.56	M-12	1/4”	1/4”	2.82
FPLF 35 M	4.57	2.28	2.56	M-12	1/4”	1/4”	2.29
FP 50 M	6.06”	3.33”	3.54”	M-16	1/4”	1/4”	7.15
FP 60 M	6.06”	3.74”	4.33”	M-16	1/4”	1/4”	9.35
FP 95 M	6.14”	5.51”	5.91”	N/A	3/8”	3/8”	20.7



FAL - VTL OSCILLATOR

Features and Benefits

Vibrator stops instantly when air is turned off. The dribble feed is reduced dramatically when FAL is used in feeders applications.

For moving or feeding certain kinds of materials, sometimes low frequency and high amplitude are required. FAL and VTL have been designed to meet these needs.

By adjusting air flow the ideal product frequency can be reached.

Noise level never exceeds 75 dBA

The “housing mode” produces very high amplitudes at much lower frequencies.

Possible Applications

This compact and robust linear vibrator is available in 9 popular sizes and is suitable for use in a wide range of applications.

Feeders: Natural Frequency Feeders
Particularly good for feeding light materials where large amplitudes are required. Precision of batch weighing can be considerably enhanced.

Tables: For packing industry, foundries for core making.

Screens: Very effective on small screens for material of low specific gravity, granular materials and powder.

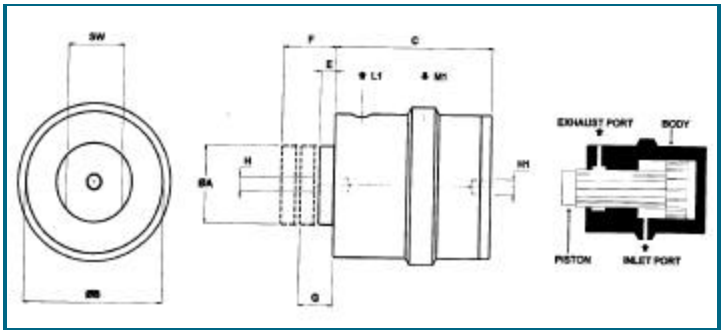
Hoppers: Certain applications where larger materials bridge. Not suitable for sticky or ratholing materials.

PERFORMANCE DATA

MODEL	HOUSING MATERIAL	FREQUENCY			FORCE OUTPUT			AIR CONSUMPTION		
		30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI	30 PSI	60 PSI	90 PSI
		vpm	vpm	vpm	lbs	lbs	lbs	cfm	cfm	cfm
FAL 8	Aluminum	2000	2800	3400	3	7	9	0.06	0.2	0.3
FAL 18	Aluminum	1400	1800	2200	13	25	55	0.5	1	2.3
FAL 25	Aluminum	1100	1600	2000	25	50	110	1	2	5
FAL 35	Aluminum	1200	1650	2000	45	90	200	2.8	6	15
VTL 15	Nylon	1800	2300	2800	9	13	16	0.8	1.9	1.1
VTL 16	Cast Iron	1900	2300	2600	10	14	19	0.7	1.6	2.5
VTL 25	Cast Iron	1600	1800	2300	20	35	50	2.0	4.5	7
VTL 40	Cast Iron	1400	1700	2000	45	70	100	3	8	14
VTL 55	Cast Iron	1600	2100	2500	100	170	250	5	15	25
VTL 85	Cast Iron	1800	2200	2600	160	210	250	11	22	32

How It Works

A steel piston within an aluminum (or cast iron) body is made to move in a reciprocating motion thus generating vibrations without striking cylinder walls. The option of externally applied weights allows vibration force, amplitude and frequency to be adjusted.



DIMENSIONS

MODEL	A	B	C	E	F	G	H MOUNTING	L (BSP) OUTLET	M (BSP) INLET	Weight (lbs)
FAL 8	0.31”	0.78”	3.50”	0.20	1.25	0.85	M-5	M-5	M-5	0.9
FAL 18	0.71”	1.89”	4.61”	0.32”	1.61”	1.26”	M 10	1/8”	1/8”	1.6
FAL 25	0.98”	2.36”	5.51”	0.32”	1.89”	1.50”	M 16	1/4”	1/4”	3.3
FAL 35	1.37”	3.07”	5.51”	0.55”	2.00”	1.61”	M 16	1/4”	1/4”	5.7
VTL 15	0.59	1.97	4.50	0.35	1.69	0.59	M10	1/8”	1/8”	1
VTL 16	0.63	1.93	4.33	0.20	1.57	0.72	M10	1/8”	1/8”	3
VTL 25	0.98	2.52	5.43	0.35	2.13	1.08	M16	1/4”	1/4”	7
VTL 40	1.60	3.31	5.51	0.47	2.24	0.95	M16	1/4”	1/4”	12
VTL 55	2.17	4.33	4.92	0.67	2.17	0.78	M20	3/8”	3/8”	17

FKL IMPACTOR

*FKL **impactor** generates single blows similar to a sledgehammer.*

The sudden shock of the impact is able to move sticky and clinging products.

*The **impactor** with its high acceleration moves products that don't usually respond to standard rotary and linear vibration.*

Time between impacts is adjustable from 3 seconds up to 1 day depending on how the timer is regulated.

PERFORMANCE DATA

MODELS		FKL 100	FKL 150	FKL 200
PRESSURE	*PSI*	50-100	50-100	50-100
FREQUENCY	*impacts per minute*	0-10	0-10	0-10
ACCELERATION	*inch-lbs*	270	450	800
IMPACT FORCE EQUIVALENT	*lbs*	300	600	1200
CONSUMPTION	*cubic feet / impact*	0.07	0.15	0.30
BIN WALL THICKNESS	*inches*	1/8" -1/4"	3/16"-5/16"	1/4" - 1/2"
WEIGHT	*lbs*	10	21	32

Impactor applications

Able to knock off stubborn material adhering to hopper walls.

Preventing bridging and ratholing.

Next step whenever standard rotary or linear vibrators can not get the job done.

Construction

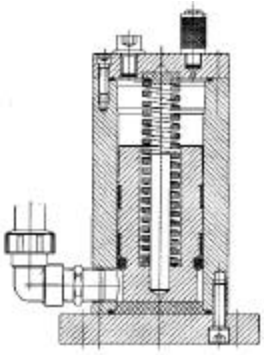
FKL impactor is made of a machined aluminum case and of a hardened steel piston. Between piston and bottom plate sits an impact resistant polymer that reduces the noise.
It comes with an Electronic Timer and a normally closed 3 ports Solenoid Valve

How it works

Compressed air keeps the piston against the spring.

When air is rapidly vented,the spring fires the piston against the bottom plate.

When air is reapplied, the piston is reloaded.



Maintenance tips

Always use a regulator and a 5 micron filter to control and clean air supply

Make sure compressed air is off during installation or maintenance

Vibrator must be securely mounted to a flat smooth surface. Use locknuts, locking washers or loctite when tightening bolts.

Temperature range should be between 40^0 F and 180^0 F

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