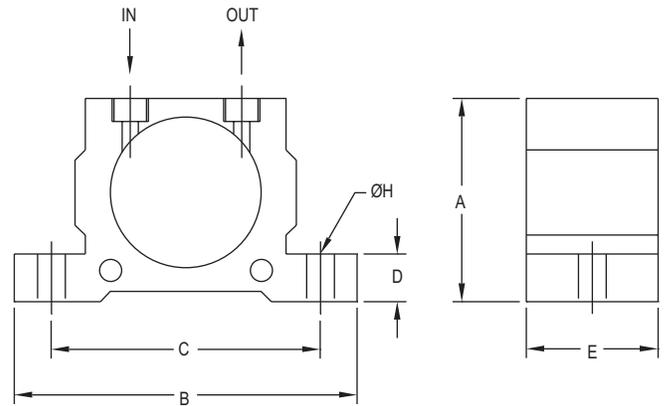




Series PTV Pneumatic Turbine Vibrator

Specifications - Installation and Operating Instructions



DIMENSIONS							
Model	A	B	C	D	E	H	IN/OUT
PTV-1	2-1/32 [51.59]	3-27/64 [86.92]	2-11/16 [68.26]	31/64 [12.30]	1-5/16 [33.34]	9/32 [7.14]	1/8 BSPT
PTV-2 & PTV-3	2-41/64 [67.07]	4-29/64 [113.11]	3-35/64 [90.09]	41/64 [16.27]	1-21/32 [42.07]	23/64 [9.13]	1/4 BSPT
PTV-4 & PTV-5	3-9/32 [83.34]	5-3/64 [128.19]	4-7/64 [104.38]	41/64 [16.27]	2-7/32 [56.36]	23/64 [9.13]	1/4 BSPT
PTV-6	4-1/16 [103.19]	6-5/16 [160.34]	5-1/8 [130.18]	51/64 [20.24]	2-7/8 [73.03]	7/16 [11.11]	3/8 BSPT

Series PTV Pneumatic Turbine Vibrator is the best choice of high vibration frequency types for a low noise environment. It is usually installed on a vibrating separator, conveyor, automatic arrangement machine, packing machine, or filling machine.

PTV Series Pneumatic Turbine Vibrators

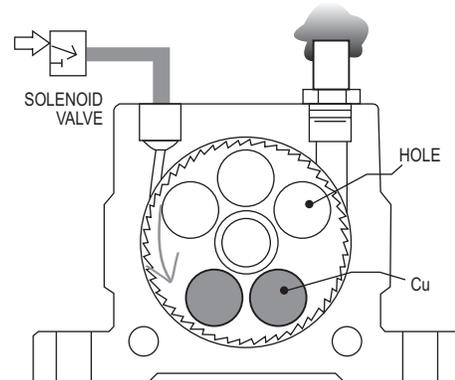
- Aluminum body allows low noise and high vibration frequency
- Small in size and light-weight
- Sudden power on/off is allowed
- Frequency and amplitude of vibration can be adjusted as required

HOW IT OPERATES

The vibration is produced by centrifugal force which arises from the imbalance of movement when compressed air impacts the tangent of the turbine to make it move. The operation noise is low because of ball bearing supports on the running turbine.

SPECIFICATIONS

Temperature Limit: : 212°F (100°C).
Noise Level: 60-75 dBA.
Supply Pressure: 29 to 87 psi (2 to 6 bar).
Air Consumption: See model chart.
Air Connection: 1/8" BSPT female with 1/4" OD push to connect adapter on PTV-1. 1/4" BSPT female with 1/4" OD push to connect adapter on PTV-2, PTV-3, PTV-4, and PTV-5. 3/8" BSPT female with 3/8" OD push to connect adapter on PTV-6. Also includes muffler for exhaust port.
Housing Material: Aluminum.



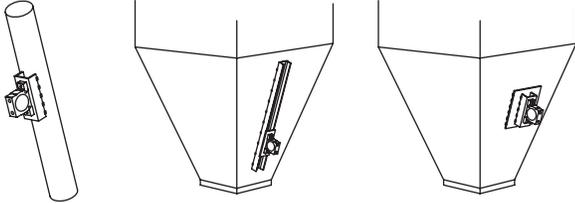
MODEL CHART										
Model	Frequency (V.P.M.) Pressure Input			Force lbf (N) Pressure Input			Air Consumption cfm (l/min) Pressure Input			Weight lb (kg)
	29 psi (2 bar)	58 psi (4 bar)	87 psi (6 bar)	29 psi (2 bar)	58 psi (4 bar)	87 psi (6 bar)	29 psi (2 bar)	58 psi (4 bar)	87 psi (6 bar)	
PTV-1	27500	35000	37500	189 (840)	312 (1390)	540 (2400)	1.62 (46)	2.83 (80)	4.0 (112)	.56 (0.26)
PTV-2	26000	30000	33000	315 (1400)	549 (2440)	839 (3730)	4.24 (120)	7.06 (200)	10.2 (290)	1.25 (0.57)
PTV-3	17000	21500	24000	274 (1220)	470 (2090)	710 (3160)	4.24 (120)	7.06 (200)	10.2 (290)	1.28 (0.58)
PTV-4	17000	20000	23000	488 (2170)	908 (4040)	1241 (5520)	6.53 (185)	11.5 (325)	16.1 (455)	2.4 (1.1)
PTV-5	12000	15500	17000	477 (2120)	789 (3510)	1140 (5070)	6.53 (185)	11.5 (325)	16.1 (455)	2.4 (1.1)
PTV-6	13000	14000	16000	760 (3380)	1221 (5430)	1695 (7540)	11.65 (330)	18.71 (530)	26.3 (745)	4.8 (2.2)

V.P.M. = vibrations per minute

INSTALLATION

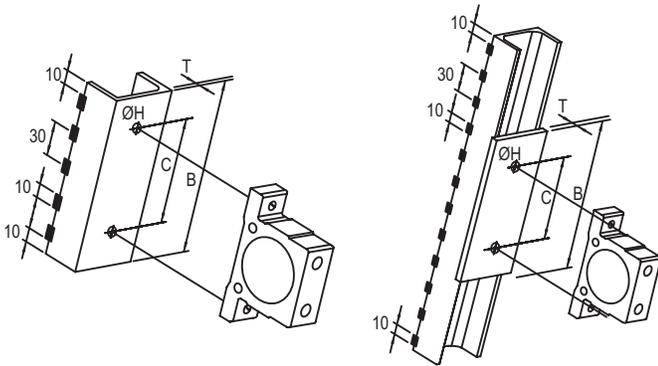
Vibration force transmits more efficiently in a conical hopper tank as opposed to a rectangular hopper. It is recommended that you install two vibrators in rectangular hoppers.

1. Vibrator force can be transmitted more efficiently by using "U" shape steel supports. It can help materials run smoother in the tank or pipe. It also reduces tank damage accidents.
2. To avoid tank wall amplitude caused by the vibrator moving in a left or right direction, use "U" shape steel.
3. Reinforced board is required between "U" shape steel and a thin tank wall.
4. To increase vibration fields in a big hopper tank, criss-cross "U" shape steel.



Attention: Vibration has to be fixed by a high tension bolt, washer, and spring washer. Connect with a security cable if the vibrator is installed onto a hopper.

Note: Various tanks are based on application requirement. Customers choose appropriate vibrator types to meet with various applicant demand (tank shape, material, applied material, etc). Suitable vibrators will not only prevent obstruction problems but won't damage the tank walls.



VIBRATION FORCE CALCULATION

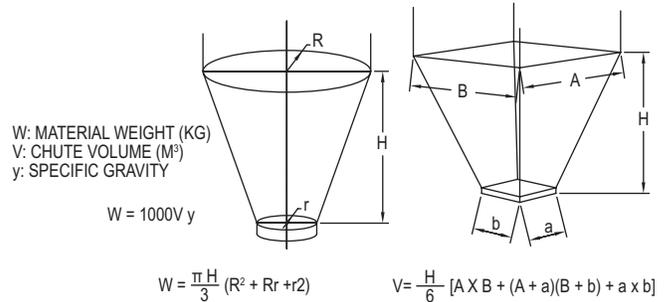
Taking the accumulated situation into consideration, the appropriate vibrator will give 0.2~0.5 G accelerated vibration onto the target object.

$F=0.2-0.4GW$

F: Vibration force (N)
G: Acceleration of gravity
W: Material weight (KG)

MATERIAL WEIGHT CALCULATION

Generally speaking, the hopper portion of the tank should be taken into consideration.



MAINTENANCE

Upon final installation of the Series PTV Pneumatic Turbine Vibrator, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series PTV is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return good authorization number before shipping.