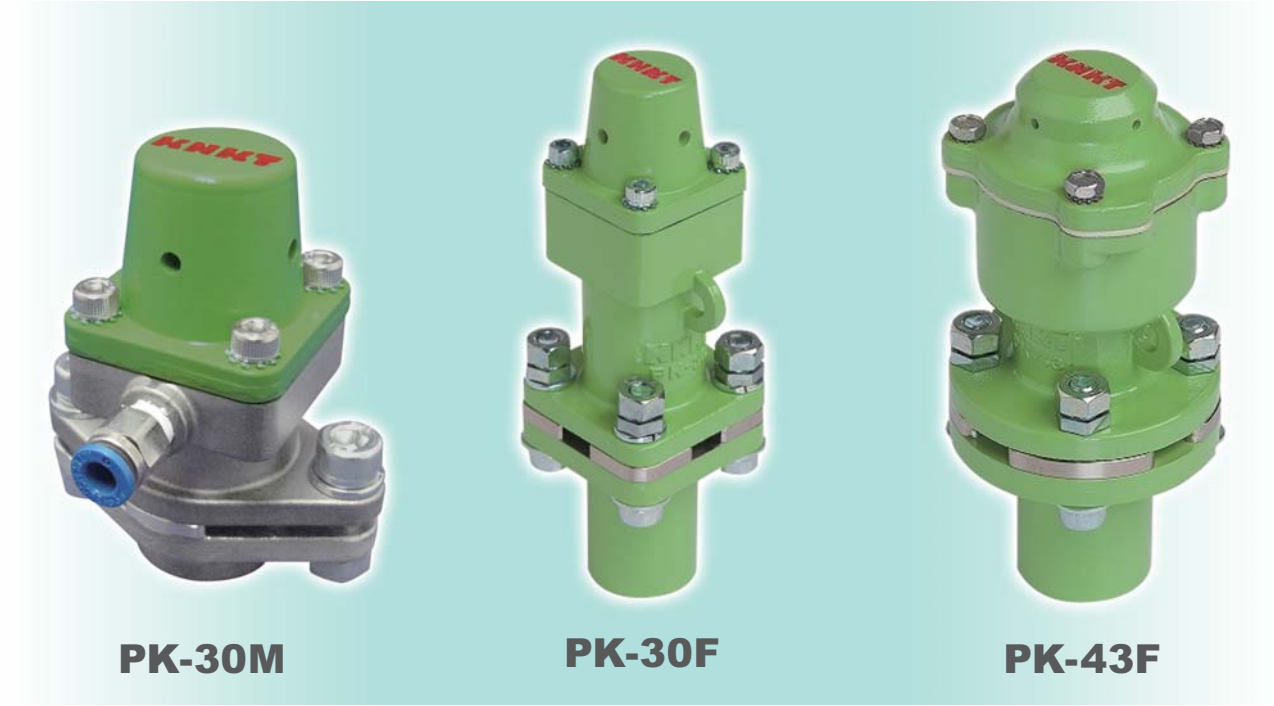
PUL NOCKER® PK Series



PUL NOCKER® is designed as a pneumatic impacting and vibrating device for hopper walls, featuring a new mechanism that uses a magnet for the operating valve to convert compressed air to pulses. The created air pulses instantaneously push down the piston to impact on a hopper or tank wall. The pulse interval is freely controllable by using a speed control valve.

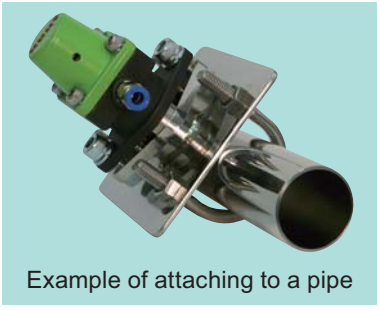
Features

Driven only by compressed air

- PUL NOCKER® is very cost-effective because of its lower air consumption thanks to air pulse operation.
- The impacting interval is freely controllable by using a speed control valve, and so can be set to different operational requirements according to the characteristics of your powder or granules.
- Easy to use. A unique magnetic valve is built into PUL NOCKER®, which works by compressed air without a solenoid valve or electric control.

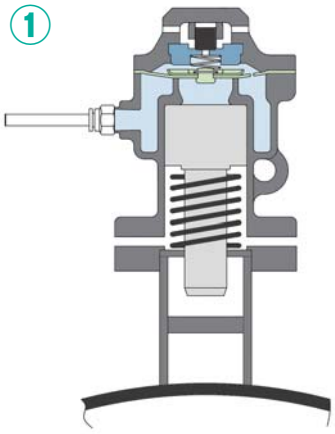
Small and lightweight (PK-30M)

- It can be attached to a small hopper, tank or pipe.



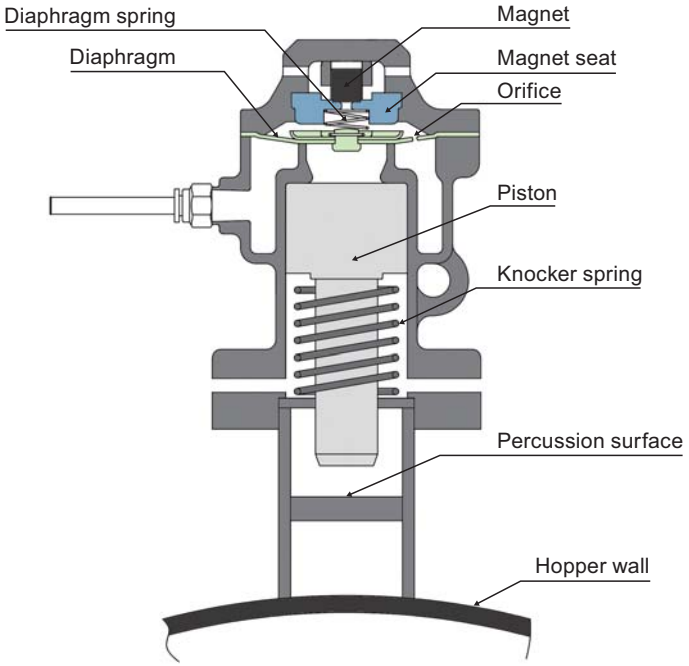
Example of attaching to a pipe

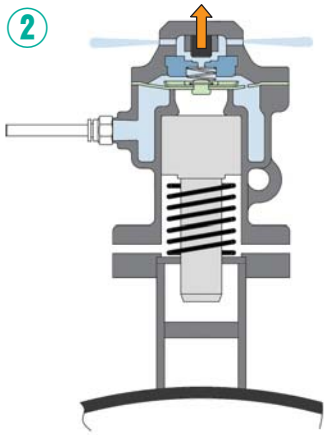
Principle of Operation

① 

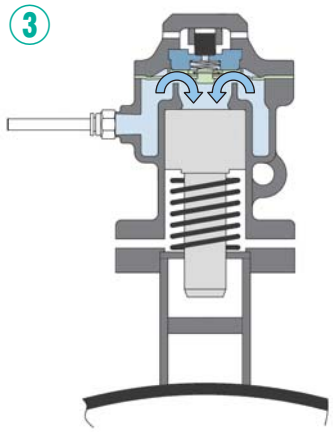
The compressed air supplied from the compressor (0.4 to 0.6 MPa) passes through the air reservoir and the orifice in the diaphragm inside the unit, and fills the inside of the unit.

Names of Components

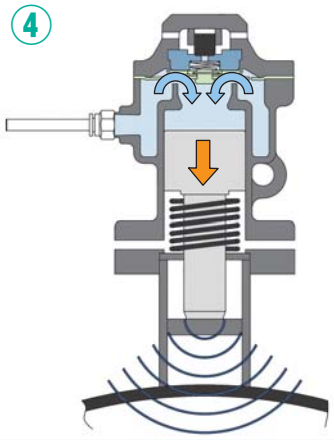


② 

When the pressure inside the unit reaches the limit of the absorption force of the magnet, the magnet valve is opened.

③ 

As the magnet valve is opened, the compressed air filled inside the unit pushes up the diaphragm to generate powerful air pulses.

④ 

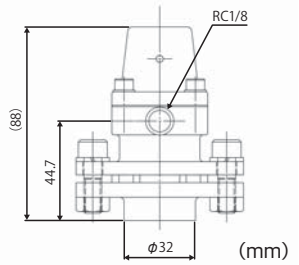
Using these powerful air pulses, the piston strikes and vibrates the hopper.

Specifications

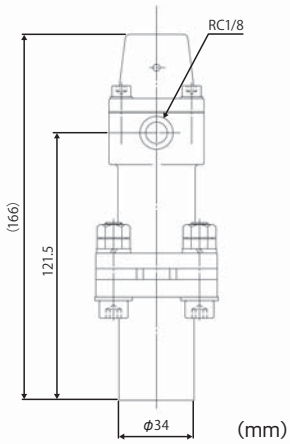
Model	Supply pressure [MPa]	Connection tube [mm]	Operating interval [sec]	Air quantity [L/pulse]	Impact strength [kg・m/s]	Weight [kg]
PK-30M	0.4~0.6	O.D. ϕ6 (I.D. ϕ4)	1~60	0.02~0.03	~0.38	0.5
PK-30F	0.4~0.6	O.D. ϕ6 (I.D. ϕ4)	1~60	0.02~0.05	~0.64	1.1
PK-43F	0.4~0.6	O.D. ϕ6 (I.D. ϕ4)	1~60	0.05~0.15	~1.9	2.8

Note 1 : Always use the machine within the range of the specified supply pressure.
Note 2 : Use air or inert gas.
Note 3 : The operating interval should be set to 1 sec or longer per pulse.
Note 4 : The maximum operating temperature is 40℃.

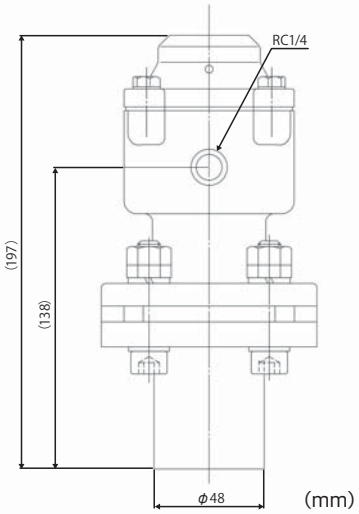
Dimensions



PK-30M



PK-30F



PK-43F

Product code

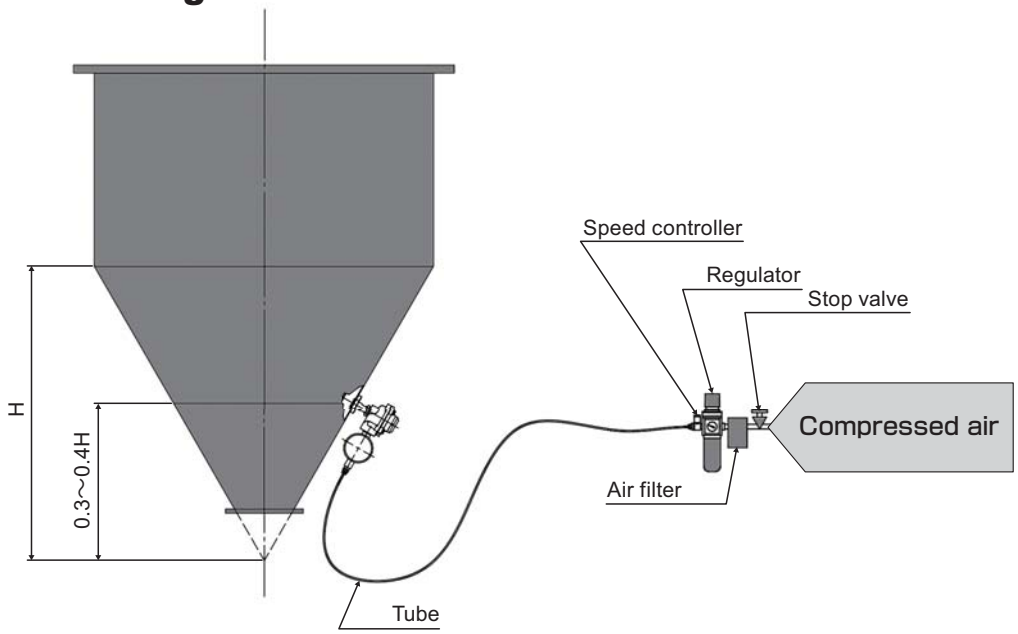
Product code	Product name
PK30M00000	PUL NOCKER® PK-30M
PK30F00000	PUL NOCKER® PK-30F
PK43F00000	PUL NOCKER® PK-43F
PK30MAX000	PUL NOCKER® PK-30M AX1
PK30FAX000	PUL NOCKER® PK-30F AX1
PK43FAX000	PUL NOCKER® PK-43F AX1

Note 1 : The AX1 type is based on ATEX Directive 94/9/EC,
Note 2 : Safety must be carefully evaluated to reduce the risk inan explosion-proof environment.

CE Ex II 3 D c T40℃

Installation examples

Connection diagram



Installation photos