Air Knocker (Indirect Impact type)

A blockade of a bulk material is canceled by automation of hammering!

Model	Code Number
RKV20P	000992000
RKV30PA	000690000
RKV40PA	000686000
RKV60PA	000687000
RKV80PA	000691000
RKV100PA	000692000

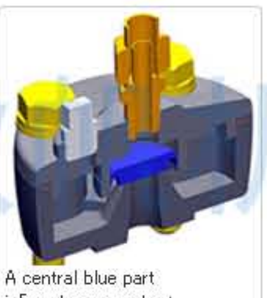
Grain, Feed silo / Flour Mill / Iron Works, Cement Plant / Petro-chemical Plant / Food, Pharmaceu-tical Plant / Gravel, Sand Plant / Toner, Pigments Plant / Precast concrete Plant / OTHER other Industries

Feature | Specification | Size / Installation

A piston strikes a knocker`s boby a base by the force of a compressed air. It is the instrument which prevents adhesion and a blockade of a bulk material by the impact force Moreover, it can be used only by air supply and excels in safety and economical efficiency. It is effective in a bulk material with the characteristic which will adhere to if a vibration is given.

Impact force adjustable

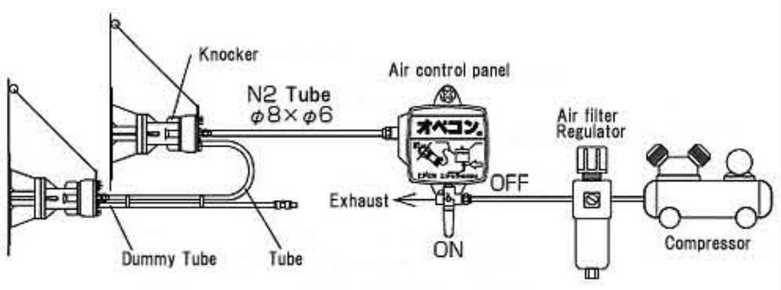
A impact force can be changed only by changing the pressure of supply air. Moreover, there is effectiveness also in a reduction of noise. Even when the mistake of model selection occurs, it can solve by conditioning of a impact force, so larger model selection is appreciated with relief.



A central blue part is「mushroom valve」

Relay piping

Relay piping function in which two or more sets can be operated at the same time by one set of a control panel. Air controller AOC of one set can use to three sets of knockers. The exclusive control panel for knockers can be used two or more sets similarly. Number of a control panel can be reduced in the whole facilities, save the equipment cost by introduction of a relay piping.
※Please refer to the「Flow aid equipment combination」



Automatic control can be performed by attaching a solenoid valve before on air operation controller.(air supply-side)

Relay knocker's operation principle

(1) The compressed air which flowed in into the knocker is first supplied to a valve chamber, depresses a valve, and is stored in an accumulator.
(2) If a three way valve is operated and the air in a valve chamber is exhausted, the compressed air in an accumulator will move a mushuroom valve upwards.
(3) If a mushroom valve moves, the compressed air in an accumulator will strike a push-down piston.

Environment-friendly by oil free

Lubricant is not required.Oil mist may not come out, it is the best for the work environment in a factory. Lubricator is unnecessary to supply equipment of air, and the merit of cost reduction is in it.

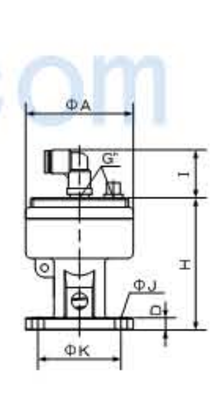
Simple structure & high durability

Clear in 1million times of the stroke test. It is almost maintenance-free and high durability and simple structure.

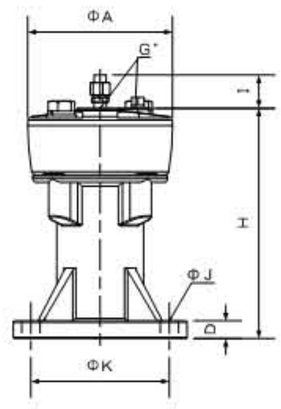
A convenient one-touch coupling is adopted (only for RKV20)

The one-touch coupling which easy attachment and detachment and free air intake(swivel joint) is adopted.

dimensional drawing



RKV20P



RKV30 · 40PA

dimensional chart (mm)

Model	ϕA	ϕC	D	G"	H	I
RKV20P	57	57	6.5	1/8	70	26
RKV30PA	66	70	8		95	25
RKV40PA	86	95	12		140	

Model	ϕJ	ϕK	L	M	ϕN
RKV20P	6.5	44	6	28	21.7
RKV30PA	8.5	55	8	35	27.2
RKV40PA	12.5	70	13	60	34.0

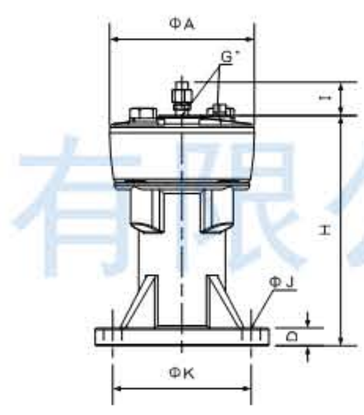
*Bolt recommnds a class 10.9

Model	ϕA	ϕC	D	G"	H	I
RKV20P	2.2	2.2	2.6	1/8	2.8	1.0
RKV30PA	2.6	2.8	0.3		2.8	1.0
RKV40PA	3.4	3.7	0.5		5.5	

Model	ϕJ	ϕK	L	M	ϕN
RKV20P	0.3	1.7	0.2	1.1	0.9
RKV30PA	0.3	2.2	0.3	1.4	1.1
RKV40PA	0.5	2.8	0.5	2.4	1.3

*Bolt recommnds a class 10.9

Product dimensional drawing



dimensional chart (mm)

Model	ϕA	ϕC	D	G"	H	I	ϕJ
RKV60PA	115	138	14	1/8	183	25	14.5
RKV80PA	146	148	16	1/4	222	28	17.0
RKV100PA	175	208	20		270		21.0

Model	ϕK	L	M	M'	ϕN	O
RKV60PA	110	15	80	120	76.3	(196)
RKV80PA	120	18	90	115		(216)
RKV100PA	170	23	115	135	114.3	(308.3)

*Bolt recommnds a class 10.9

dimensional chart (inch)

Model	ϕA	ϕC	D	G"	H	I	ϕJ
RKV60PA	4.5	5.4	0.6	1/8	7.2	1.0	0.6
RKV80PA	5.7	5.8	0.6	1/4	8.7	1.1	0.7
RKV100PA	6.9	8.2	0.8		10.6		0.8

Model	ϕK	L	M	M'	ϕN	O
RKV60PA	4.3	0.6	3.1	4.7	3.0	7.7
RKV80PA	4.7	0.7	3.5	4.5		8.5
RKV100PA	6.7	0.9	4.5	5.3	4.5	12.1

*Bolt recommnds a class 10.9

RKV type specification (mm)

Model	Working Pressure (Mpa)	Stroke Cycle (time/min)	Air Consumption (L/time(ANR))	Stroke Energy (N·m)
RKV20P	0.3~0.7	1~60	0.04~0.10	4.3~8.3
RKV30PA			0.05~0.13	5.5~13.1
RKV40PA			0.15~0.37	9.2~22.3
RKV60PA			0.33~0.77	20.6~49.0
RKV80PA			0.60~1.40	45.1~109.0
RKV100PA			0.98~2.28	82.4~201.0

Model	Impulsive Force		Weight (kg)
	(kg·m/s)	Hammer pound	
RKV20P	0.6~0.8	beiow 0.6 lb	0.7
RKV30PA	1.2~1.8	beiow 1.0 lb	1.3
RKV40PA	2.6~4.0	1.0~1.5 lbs	3.4
RKV60PA	6.9~10.6	1.5~3.0 lbs	8.8
RKV80PA	15.2~23.7	3.0~8.0 lbs	13.7
RKV100PA	30.0~46.9	6.0~15.0 lbs	30.8

* The model beyond RKV60PA is equipped standardly with a stiffening rib, all models are equipped standardly with a wire and a shackle.
*A base is also included in weight.

RKV type specification (inch)

Model	Working Pressure (psi)	Stroke Cycle (time/min)	Air Consumption (ft^3/time(ANR))	Stroke Energy (lbw·ft)
RKV20P	43.5~101.5	1~60	0.011~0.026	3.2~6.1
RKV30PA			0.013~0.034	4.1~9.7
RKV40PA			0.040~0.098	6.8~16.4
RKV60PA			0.087~0.203	15.2~36.1
RKV80PA			0.159~0.370	33.3~80.4
RKV100PA			0.259~0.602	60.8~148.2

Model	Impulsive Force		Weight (lb)
	(ft·lbf/s)	Hammer pound	
RKV20P	4.3~5.8	beiow 0.6 lb	1.5
RKV30PA	8.7~13.0	beiow 1.0 lb	2.9
RKV40PA	18.8~28.9	1.0~1.5 lbs	7.5
RKV60PA	49.9~76.7	1.5~3.0 lbs	19.4
RKV80PA	109.9~171.4	3.0~8.0 lbs	30.2
RKV100PA	217.0~339.2	6.0~15.0 lbs	67.9

* The model beyond RKV60PA is equipped standardly with a stiffening rib, all models are equipped standardly with a wire and a shackle.