

# PNEUMATIC SHAKE DEVICES KNOCKER WITH AIR TANK

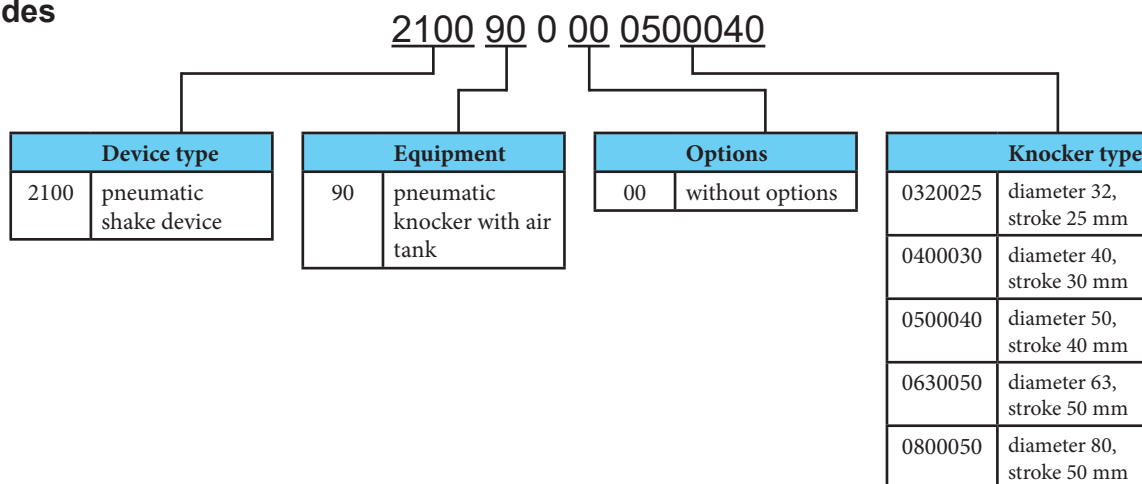


Pneumatic knocker could be used for bulk material release if the bulk material was stuck on the walls of tubes or filling hopper. Compared to ball vibrator, knocker can be used for materials which solidify by intensive shedding; in this case individual shakes are well-proven. Knocker should be controlled as well as double acting cylinder. The function is then given by the impulse effect when the pressure drop is created on the piston, the air before the piston is released and then the piston is fired against the wall of the knocker. Thanks to this principle the hammer does not require high demands on the flow of the distributor and the flow through the hoses.

Working pressure	0.6 MPa
Min. pressure	0.2 MPa
Max. pressure	1.0 MPa
Temp. range	-20°C to +80°C
Working medium	modified compressed air

Type	OKI32	OKI40	OKI50	OKI63	OKI80
Piston diameter [mm]	32	40	50	63	80
Piston weight [kg]	0.15	0.25	0.66	1.20	2.13
Recommended orifice of air supply [mm]	4	6	6	6	8
Recommended flow capacity [Nl/min]	400	600	600	600	800
Impulse [Ns]	1.5	2.7	5.2	12	20
Kinetic energy [Nm]	7.5	14	20	60	98
Max. frequency of shocks [min <sup>-1</sup> ]	30	24	20	15	12
Weight [kg]	1.2	1.8	4.0	5.9	9.7

## Order codes



## Installation and operation notes

We recommend to fix fixing screws with Loctite 242E or similar adhesive.

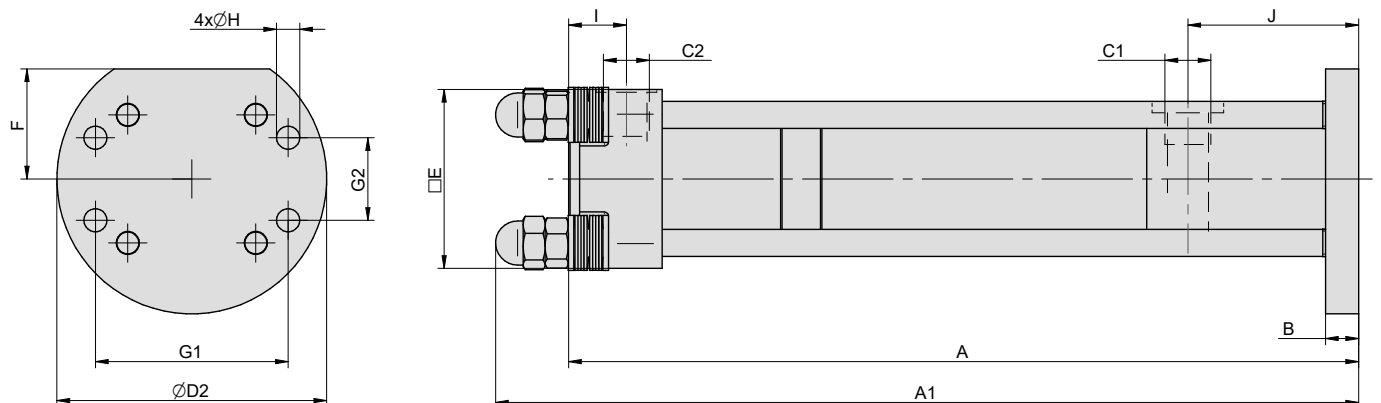
There is necessary to check right tightening of fixing screws regularly to prevent their releasing.

We recommend to use quick exhaust valve on exhaust on impact side not to decrease knocker's effectivity.

## Construction / materials

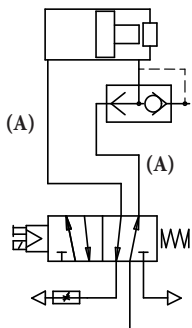
- flange: zinc plated steel
- end cap: aluminium casting
- body: drawn dural tube, anodized
- piston: steel

## Dimensions



Ø	A	A1	B	C1	C2	D2	E	F	G1	G2	H	I	J
32	203.5	-	8	G1/4"	G1/4"	69	48	28	50	18	6.4	26.5	40
40	225	-	10	G1/4"	G1/4"	72	55	30	55	20	6.4	24	44
50	287	314	12	G3/8"	G3/8"	98	65	40	70	30	8.4	21	62
63	307	334	15	G3/8"	G3/8"	119	75	45	85	40	10.5	20	58
80	313	347	20	G3/8"	G3/8"	138	94	50	100	50	13	20	58

## Recommended connection



The 5/2 valve is suitable for knocker control. Valve should be placed as close to knocker as possible, but we recommend to fix it so that valve will be isolated to shocks from knocker. We recommend to use quick exhaust valve on exhaust (mounted parallel to knocker's axis to prevent from shocks) so as not to decrease impact intensity. It is suitable to use speed control silencer during piston return movement, to get possible to control of return speed of piston into home position to prevent chocks.

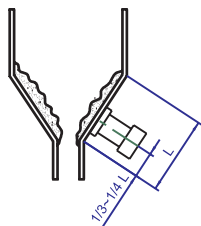


**Attention: knocker is designed to make shocks only by movement of piston towards to front cap with flange! Do not allow to make shocks during piston return movement in any case! It may be the cause of permanent damage of end cap of knocker!**

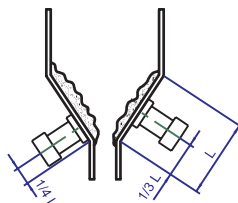
(A) We recommend consulting the choice of length and diameter of the marked parts of the circuit with our technical department.

## Mounting examples

Single knocker on filling hopper



Two knockers on filling hopper  
(edge distances should be different)



Single knocker on tube

