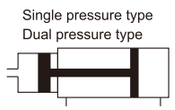
Symbol



Features

1. Shako booster is an efficient way of generating high pressure of hydraulic fluid.
2. Compact size design to save space and energy.
3. Suitable for shaping, forming, punching, riveting, shearing, welding, and testing industry.

How to order

AHS	110
Booster	**Intensified pressure ratio**
AHS : Single pressure type	**078** : 7.8
AHD : Dual pressure type	**110** : 11
	250 : 25

Repair kit

Model	Order code
AHS078	AHSSK078
AHD078	AHDSK078
AHS110	AHSSK110
AHD110	AHDSK110
AHS250	AHSSK250
AHD250	AHDSK250

Specifications

Model	AHS078	AHS110	AHS250	AHD078	AHD110	AHD250
Port size	3/8"	1/2"	1/2"	3/8"	1/2"	1/2"
Discharging volume	50cc	120cc	120cc	50cc	120cc	120cc
Fluid	Compressed air					
Working fluid	Hydraulic oil					
Operating pressure range	2 ~ 7 kgf/cm^2					
Max. operating pressure	7 kgf/cm^2					
Body material	Aluminum alloy					
Ambient temperature	5℃ ~ 60℃					
Mounting	Side foot type					
Weight	3.4 kg	10.1 kg	34.5 kg	3.1 kg	9.1 kg	33.5 kg

Acting theory

The booster can transform low pressure input to high pressure output in a efficient way.

The method of calculation (Hydraulic cylinder force)

Piston area of hydraulic cylinder $A=(\text{Bore size})^2 \times \frac{\pi}{4}$ mm^2

Booster output pressure P2=Intensified pressure ratio R X P (Air pressure MPa)

Hydraulic cylinder force F=A X P2 = _N

A : Piston area of hydraulic cylinder mm^2

D : Bore size

F : Hydraulic cylinder force

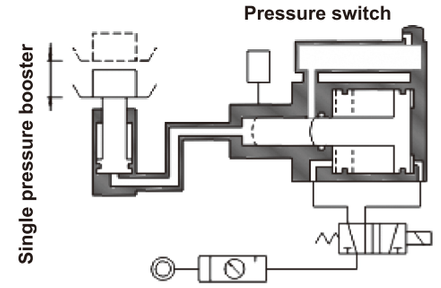
P : Air pressure

P2 : Booster output pressure

R : Intensified pressure ratio

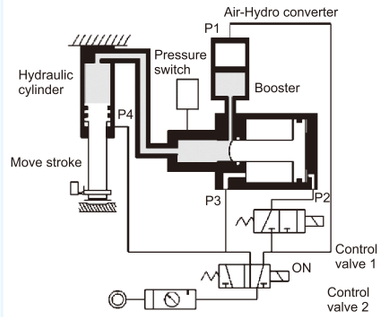
Single pressure booster

Optimum for high output short stroke cylinder.



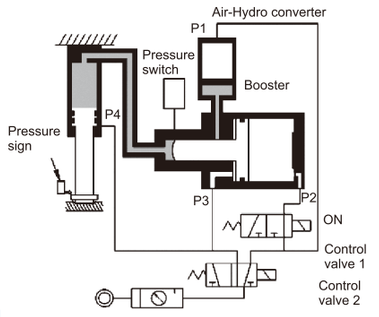
Dual pressure booster

Quick traverse



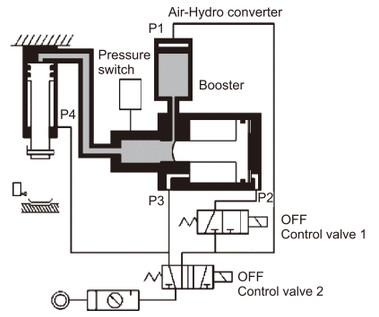
When the air is charged from the port P1, the oil in the tank will forward the hydraulic cylinder quickly.
The pressure is the same as the air pressure, but the inflow of oil is large in volume.

Intensified feeding



When the air is charged from the port P2, a ram will advance.
The high pressured fluid will come in to the hydraulic cylinder which will be forwarded by large thrust.

Swift reverse



When the air is send into port P4 and P3, the hydraulic cylinder is swiftly reversed and at the same time the ram goes back.

Points in usage

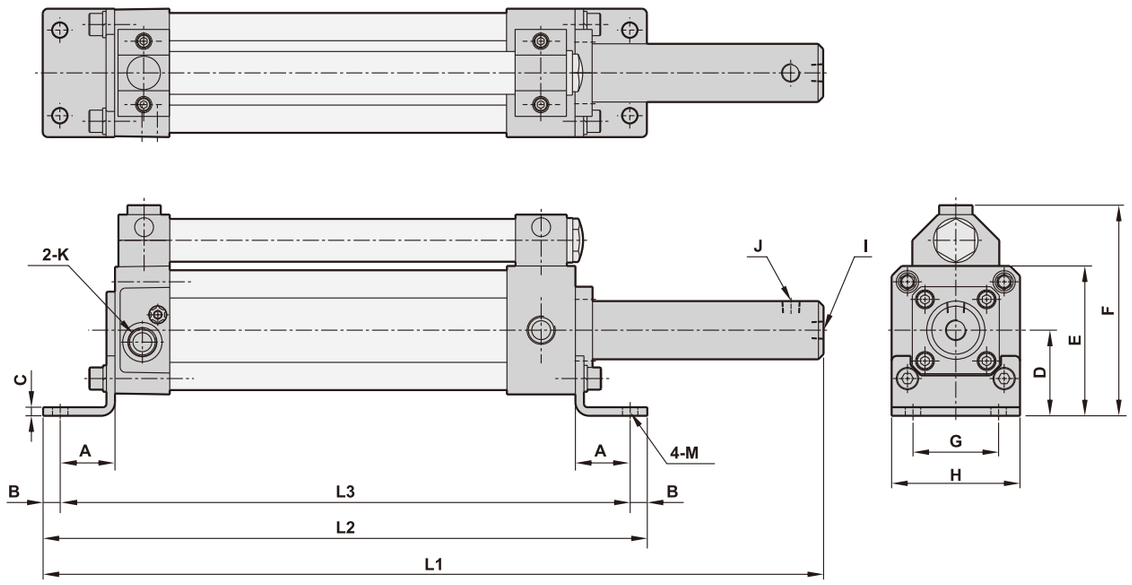
1. The booster must be leveled, otherwise, hydraulic oil will be overflowing from exhaust port.
2. Standard booster are designed for use with petroleum base hydraulic oil.
3. The booster must be higher than the work cylinder. when hydraulic oil is filled, the air bubble will be automatically drained. If the booster is lower than the work cylinder, it is necessary to wait until the air bubble completely drained before installing the work cylinder.
4. Fill hydraulic oil until the oil up to the mid of oil scale. Please do not overfill, this will make oil spray when booster operate.
5. Frequency of use should be 6 times/min or less.

Compressed air consumption

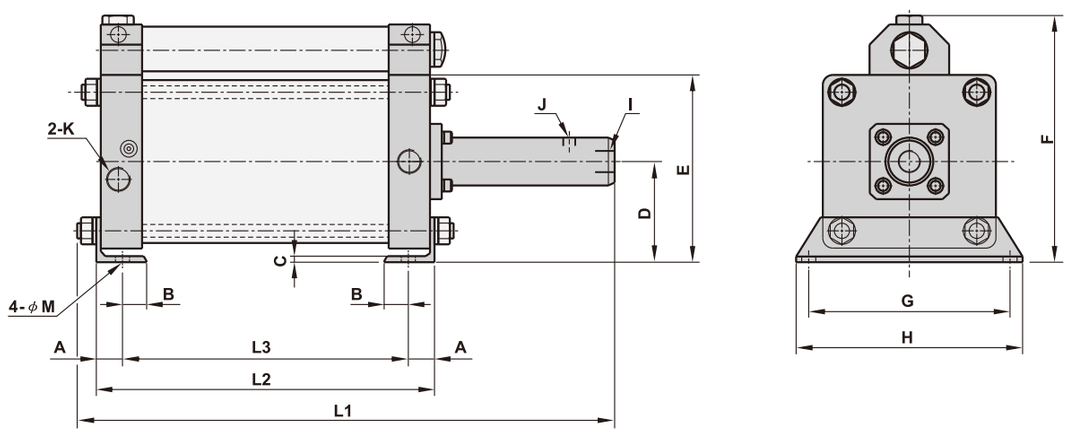
Model		Air pressure (MPa)					
		0.2	0.3	0.4	0.5	0.6	0.7
AHS078	AHD078	2.4	3.19	3.98	4.78	5.56	6.36
AHS110	AHD110	7.58	10.07	12.57	15.07	17.57	20.06
AHS250	AHD250	18.09	24.06	30.02	35.99	41.95	47.92

Dimensions

AHS078, AHS110



AHS250

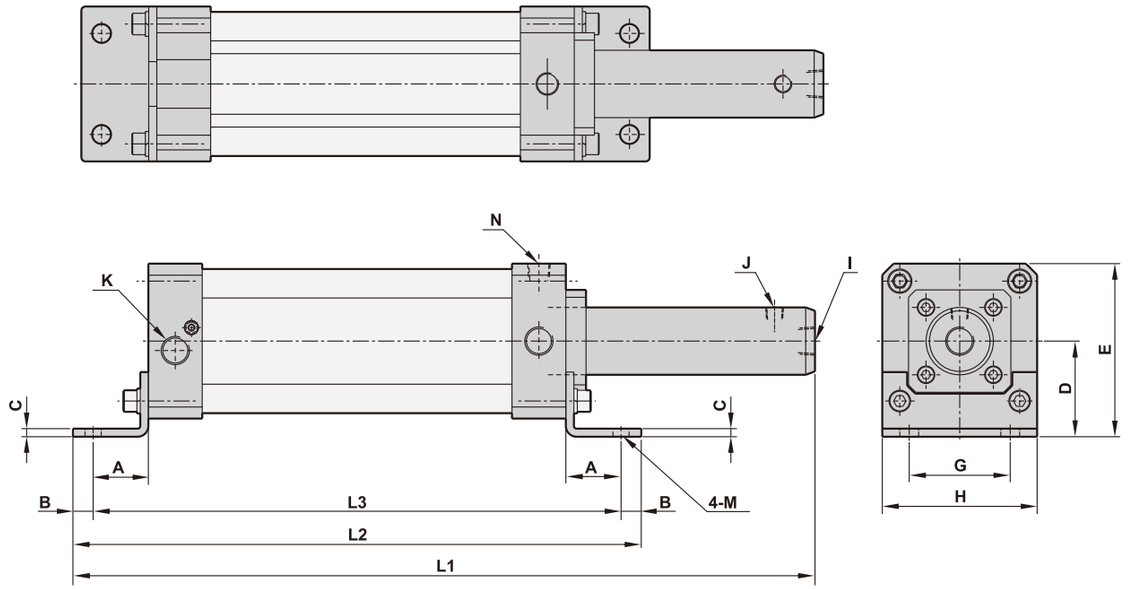


(Unit : mm)

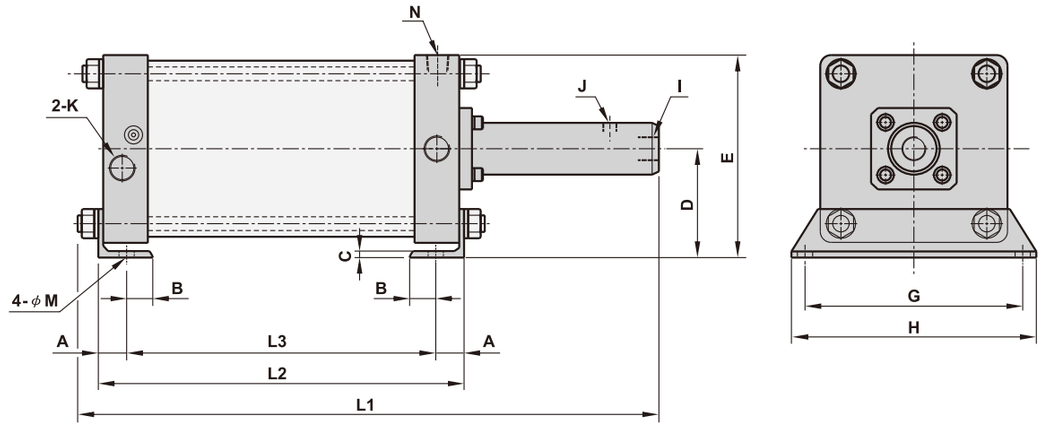
Model	A	B	C	D	E	F	G	H	I	J	K	L1	L2	L3	M
AHS078	32	10	5	50	87.5	123	50	75	PT 1/4	PT 1/4	PT 3/8	456	353	333	ϕ 9
AHS110	41	15	6	71	128.5	187.5	75	115	PT 1/2	PT 1/4	PT 1/2	551	422	392	ϕ 14
AHS250	26	24	6	100	186	245	200	225	PT 1/2	PT 1/4	PT 1/2	534	336	284	ϕ 11

Dimensions

AHD078, AHD110



AHD250



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