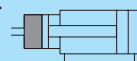


SINGLE PRESSURE TYPE ..... **HPBH** .....

DUAL PRESSURE TYPE ..... **HPBD** .....





## Features

- The booster is an efficient way of generating high pressure hydraulic fluid.
- Designed to save energy, time, space and money in a wide variety of applications.
- These abilities and benefits of boosters make them the ideal component in many applications, you can use them for such operation as marking, forming, punching riveting, shearing, steering, straightening, embossing, welding and testing.

## Specification

Type	Single pressure type			Dual pressure type		
	HPBH078	HPBH110	HPBH250	HPBD078	HPBD110	HPBD250
Intensified pressure ratio	7.8	11	25	7.8	11	25
Generated hydraulic pressure(MPa)	5.3	7.6	17.2	5.3	7.6	17.2
Discharging volume(cc)	50	120	120	50	120	120
Driving fluid	Hydraulic work oil viscosity					
Working pressure range	2.04 ~ 7.14 kgf/cm <sup>2</sup>					
Ambient temperature	+5 ~ +60 °C					
Material of boosters	Aluminium alloy					

## How to order

<b>HPBH</b>	<b>110</b>	—	<b>A</b>	<b>1</b>
Type	Intensified pressure ratio		Sensor switch	Quantity
 HPBH	078 : 7.8 110 : 11 250 : 25		A : AZRK(Suited for 078 ~ 110) B : LN03A(Suited for 250)	1 : 1pc 2 : 2pcs
 HPBD				

## The method of calculation (Booster consumption)

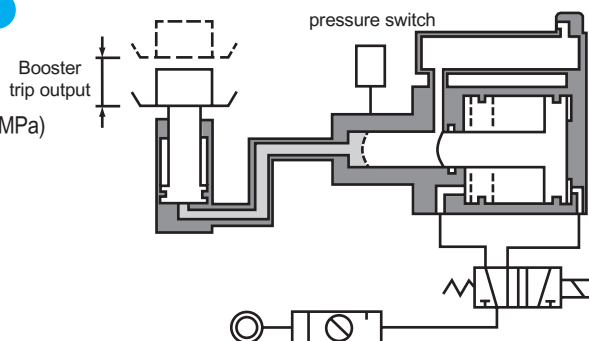
Booster area  $A = (\text{Bore})^2 \times \frac{\pi}{4} \text{mm}^2$

Booster Pressure output  $P2 = \text{Multiples ratio} \times P$  (Air pressure MPa)

Booster output  $F = A \times P2 = \text{_____} \text{N}$

## Single pressure booster

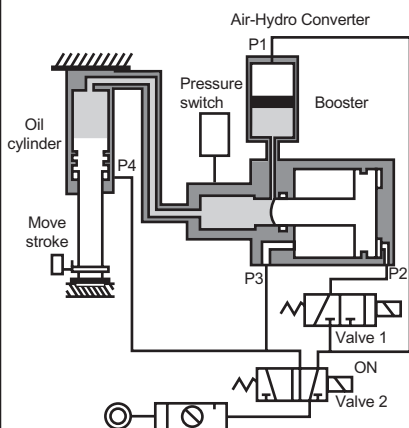
Optimum for high output, short stroke cylinder.



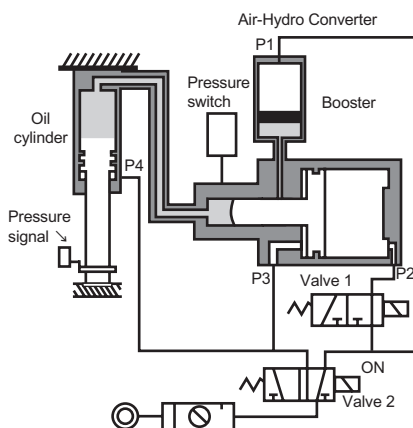
### Dual pressure booster

1. 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.
2. When the air is charged from the port P2, a ram will advance. The highly pressure fluid will come in to the hydraulic cylinder which will be forwarded by large thrust.
3. When the air is send into port P4 and P3. The hydraulic cylinder is swiftly reversed and at the same time ram goes back.

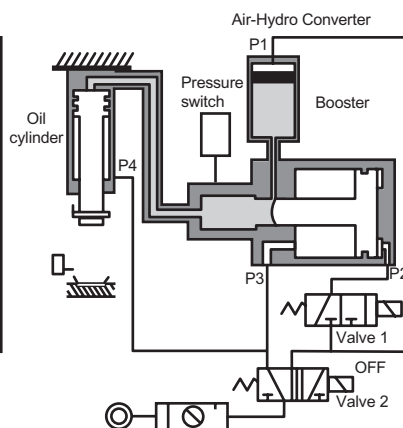
#### ① Quick traverse



#### ② Intensified feeding



#### ③ Swift reverse



### Points in usage

- The booster must be levelled.
- Standard booster are designed for use with petroleum base hydraulic oil.
- The booster must be higher than the work cylinder.
- Frequency of use should be 6 times/min or lower.

### Compressed air consumption

Unit : L / min

Booster	Air pressure (MPa)					
	0.2	0.3	0.4	0.5	0.6	0.7
HPBH078	2.40	3.19	3.98	4.78	5.56	6.36
HPBD078	2.40	3.19	3.98	4.78	5.56	6.36
HPBH110	7.58	10.07	12.57	15.07	17.57	20.06
HPBD110	7.58	10.07	12.57	15.07	17.57	20.06
HPBH250	18.09	24.06	30.02	35.99	41.95	47.92
HPBD250	18.09	24.06	30.02	35.99	41.95	47.92

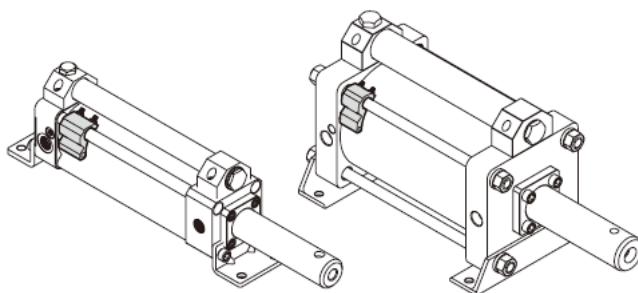
### Booster weight

Unit : kg

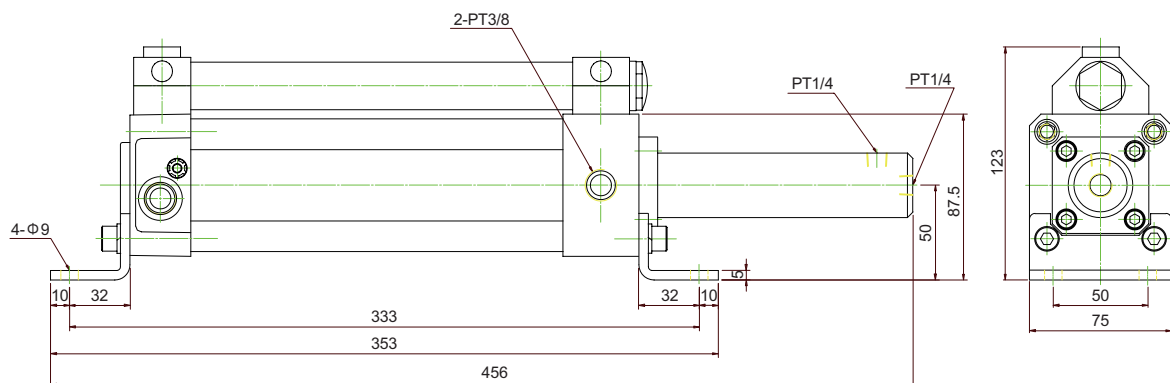
Type	HPBH	HPBD
078	3.4	3.1
110	10.1	9.1
250	34.5	33.5

### Mounting sensor switch

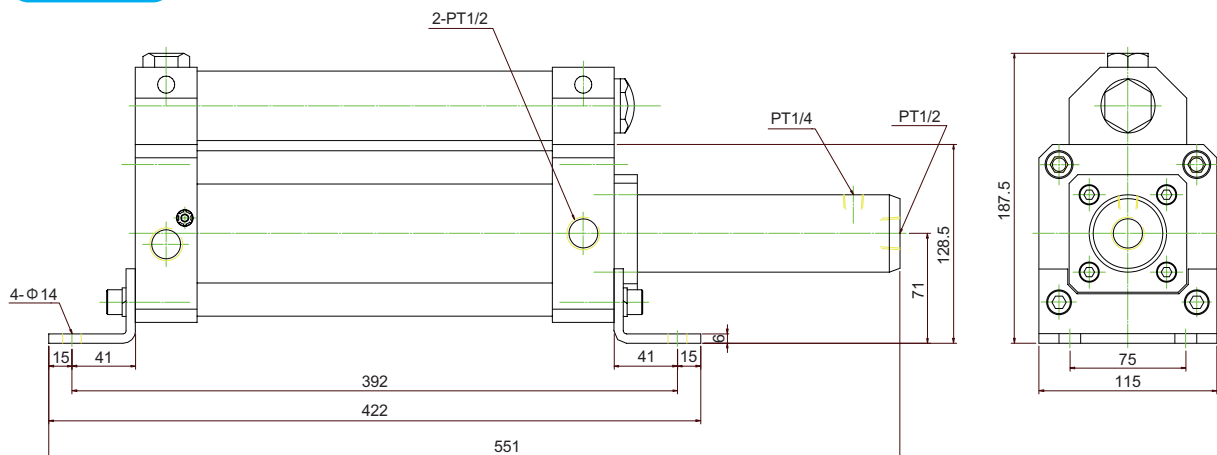
Type	Sensor switch
HPBH078 / HPBD078	AZRK
HPBH110 / HPBD110	AZRK
HPBH250 / HPBD250	LN03A



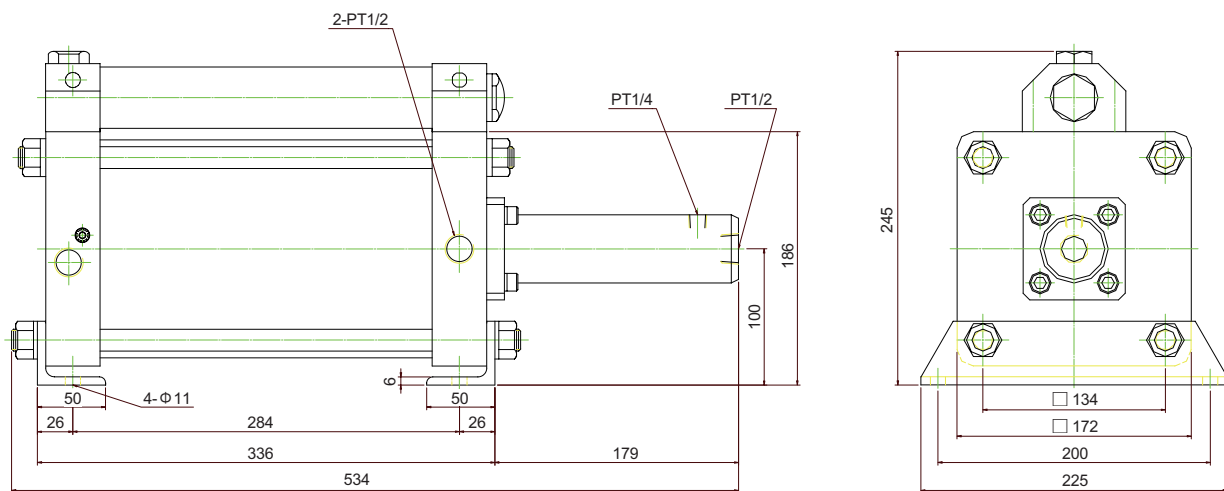
## HPBH078 Single pressure type / Dimensional features



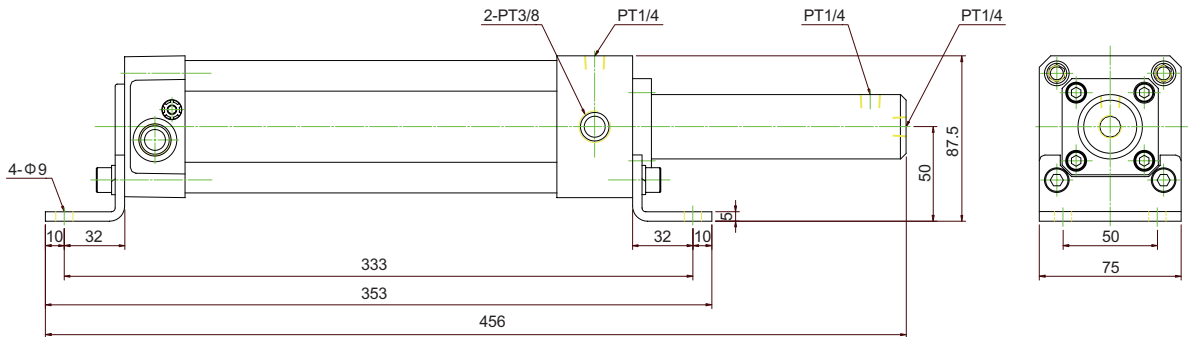
## HPBH110 Single pressure type / Dimensional features



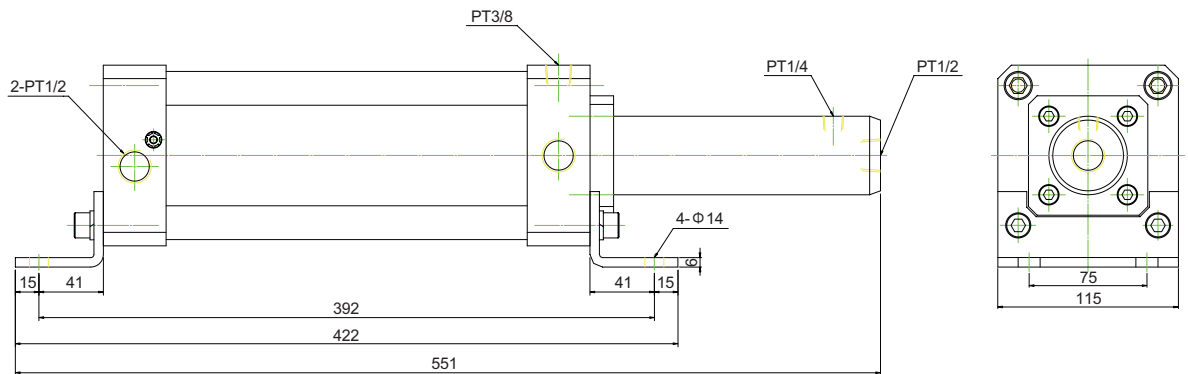
## HPBH250 Single pressure type / Dimensional features



**HPBD078** Dual pressure type / Dimensional features



**HPBD110** Dual pressure type / Dimensional features



**HPBD250** Dual pressure type / Dimensional features

