

Boosters

AHS

Single Pressure Type

AHD

Dual Pressure Type






- The UNIMEC 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		
	AHS078	AHS110	AHS250	AHD078	AHD110	AHD250
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
Ambient temperature (°C)	+5~+60			+5~+60		
Working pressure range (MPa)	0.2~0.7			0.2~0.7		
Driving fluid	Hydraulic work oil viscosity					
Mounting form	Side foot type			Side foot type		

How to order

AHD 110 — LN02A × 2

Type	Intensified pressure ratio	Sensor switch	Quantity
	078—7.8 110—11 250—25		1: 1pc 2: 2pcs
		LN02A: Suited for AH_078 LN03A: Suited for AH_110 AH_250	

Note:
1.Can choose NPN or PNP type (3-Wire type, 24VDC).
2.Can choose plug-in cable.
3.For details see page 4-1.1.

The method of calculation (Booster consumption)

Intensified pressure ratio $R = (7.8, 11, 25)$

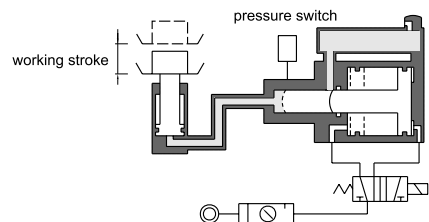
Piston area $A = (\text{Bore})^2 \times \frac{\pi}{4} \text{ mm}^2$

Working pressure $P2 = R \times P$ (Air pressure, MPa)

Cylinders' force $F = A \times P2 = \text{___ N}$

Single Pressure Booster:

Optimum for high output, short stroke cylinder.



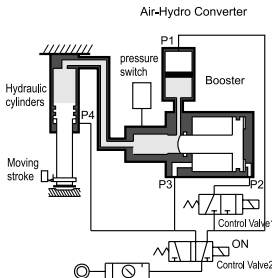
Points in usage

- 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.

Dual pressure booster

① Quick traverse

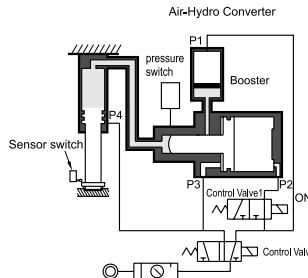
Control Valve 2 ON:



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 Intensified feeding

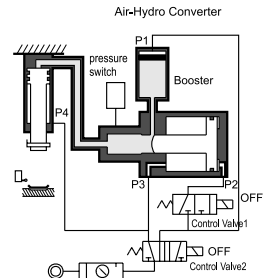
Control Valve 1 ON:



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

③ Swift reverse

Control Valve 1,2 OFF:



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.

AS

AN

AO

AH

AP

Compressed air consumption

(ℓ / min)

Booster	Air pressure (MPa)					
	0.2	0.3	0.4	0.5	0.6	0.7
AHS078	2.40	3.19	3.98	4.78	5.56	6.36
AHD078	2.40	3.19	3.98	4.78	5.56	6.36
AHS110	7.58	10.07	12.57	15.07	17.57	20.06
AHD110	7.58	10.07	12.57	15.07	17.57	20.06
AHS250	18.09	24.06	30.02	35.99	41.95	47.92
AHD250	18.09	24.06	30.02	35.99	41.95	47.92

How to order the seal kit

Type	Code
AHS078	AHSSK078
AHD078	AHDSK078
AHS110	AHSSK110
AHD110	AHDSK110
AHS250	AHSSK250
AHD250	AHDSK250

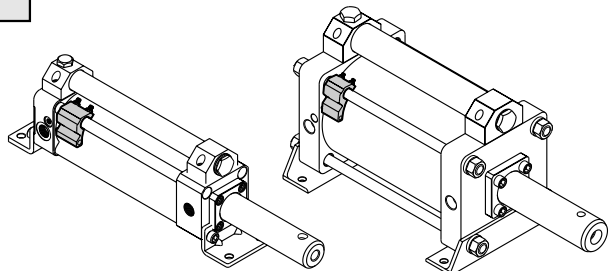
Installation of sensor switches

Type	Sensor switch
AHS(D)078	LN02A
AHS(D)110	LN03A
AHS(D)250	LN03A

Booster weight

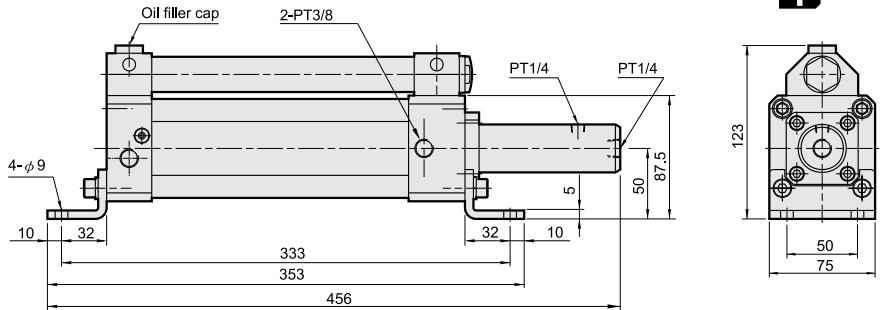
Unit: kg

Type	AHS	AHD
	078	3,4
110	10,1	9,1
250	20	18

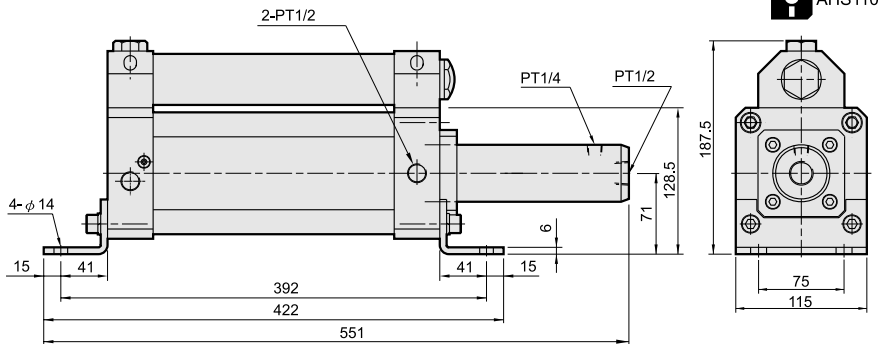


Dimensional features

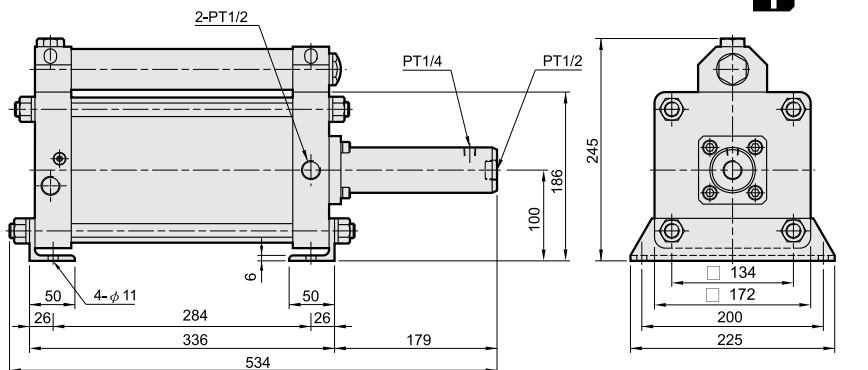
● AHS078 TYPE



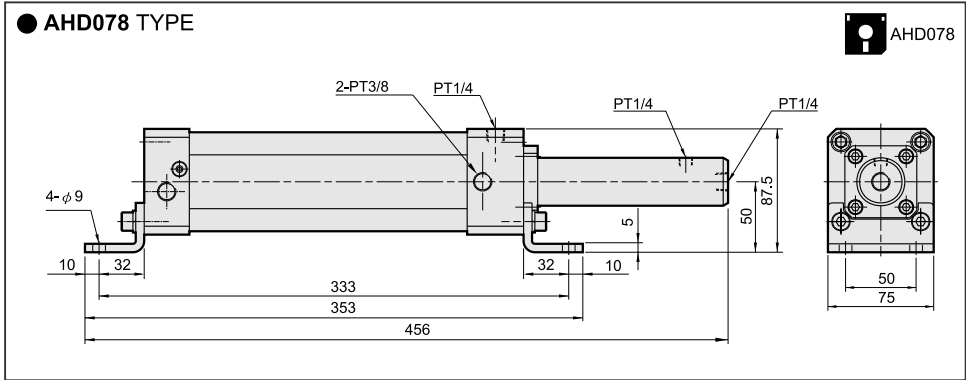
● AHS110 TYPE



● AHS250 TYPE



Dimensional features



- AS
- AN
- AO
- AH
- AP

