MHB* series

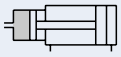
BOOSTER

Caution for safety
(Read before installing)



MHBS Single pressure type

MHBD Dual pressure type

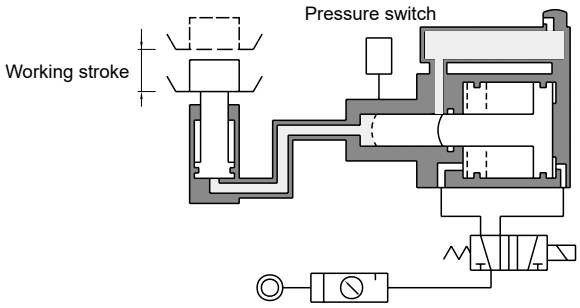


Features

- Generates high pressure by use of high pressure hydraulic fluid.
- Universal design enables unit to be used in a wide variety of applications.
- Ideal for providing the motive force for marking, punching, shearing, straightening, embossing and welding.

Single pressure booster

Optimum for high output,short stroke cylinder.



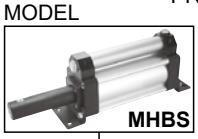
Specification

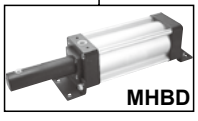
Model	Single pressure type			Dual pressure type		
	MHBS-078	MHBS-110	MHBS-250	MHBD-078	MHBD-110	MHBD-250
Intensified pressure ratio	7.8	11	25	7.8	11	25
Generated hydraulic pressure (MPa)	5.3	7.6	17.2	5.3	7.6	17.2
Discharging volume (cc)	50	120	120	50	120	120
Port size	Rc3/8	Rc1/2	Rc1/2	Rc3/8	Rc1/2	Rc1/2
Ambient temperature	+5~+60 °C					
Operating pressure range	0.2~0.7 MPa					
Driving fluid	Hydraulic work oil viscosity					
Mounting form	Side foot type					
Sensor switch	LN02A	LN03A		LN02A	LN03A	

Order example

MHBD — 110

MODEL





INTENSIFIED PRESSURE RATIO
078: 7.8
110: 11
250: 25

The method of calculation (Booster consumption)

$$A = (D)^2 \times \frac{\pi}{4}\ mm^2$$

$$P2 = R \times P$$

$$F = A \times P2 = ___\ N$$

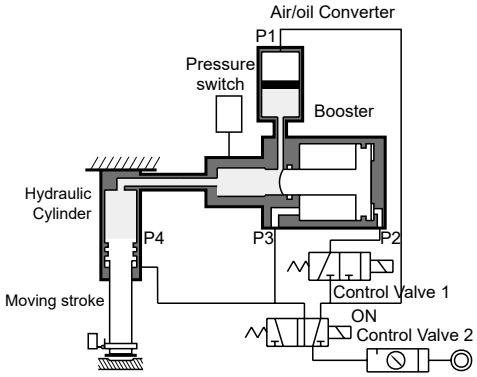
A:	Piston area	(mm^2)
D:	Piston I.D.	(mm)
F:	Cylinders force	(N)
P:	Air pressure	(MPa)
P2:	Intensified pressure	(MPa)
R:	Intensified pressure ratio	

Dual pressure booster

Booster precautions

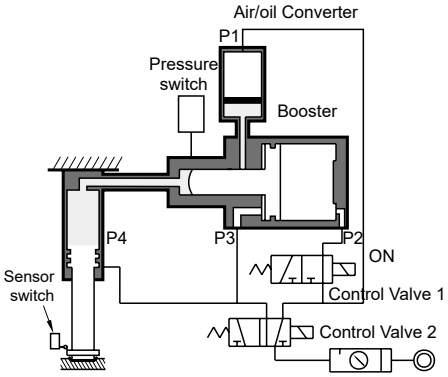
- The booster must be levelled.
- Standard booster are designed for use with petroleum base hydraulic oil.
- The booster must be higher than the work hydraulic cylinder.
- Frequency of use should be 6 times/min or lower.

1. Quick traverse



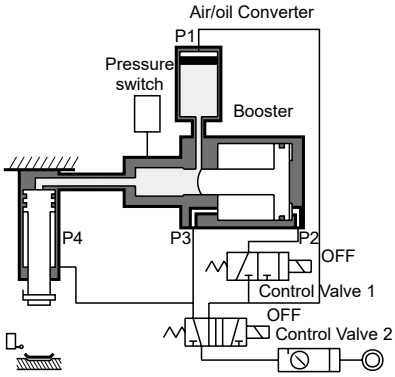
When the air enters through port P1, the oil in the air/oil converter is pushed into the hydraulic cylinder in large quantities and quickly. The pressure is the same as the air pressure.

2. Intensified feeding



When the air enters through port P2, the piston advances and pushes the high pressure oil into the hydraulic cylinder.

3. Swift reverse



When the air enters through ports P4 and P3, the hydraulic cylinder and Booster return to their original position.

Compressed air consumption

l / cycle

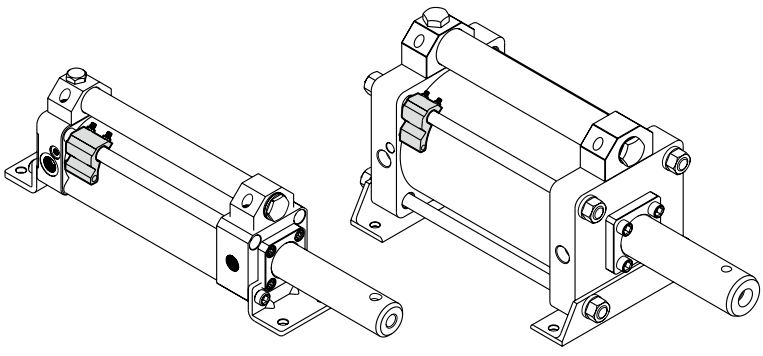
Boosters	Operating pressure (MPa)					
	0.2	0.3	0.4	0.5	0.6	0.7
MHBS-078	2.40	3.19	3.98	4.78	5.56	6.36
MHBD-078	2.40	3.19	3.98	4.78	5.56	6.36
MHBS-110	7.58	10.07	12.57	15.07	17.57	20.06
MHBD-110	7.58	10.07	12.57	15.07	17.57	20.06
MHBS-250	18.09	24.06	30.02	35.99	41.95	47.92
MHBD-250	18.09	24.06	30.02	35.99	41.95	47.92

How to order the seal kit

Model	Code
MHBS-078	MHBSSK-078
MHBD-078	MHBDSK-078
MHBS-110	MHBSSK-110
MHBD-110	MHBDSK-110
MHBS-250	MHBSSK-250
MHBD-250	MHBDSK-250

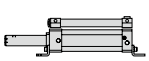
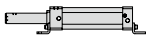
Installation of sensor switch

Model	Sensor switch
MHBS(D)-078	LN02A
MHBS(D)-110	LN03A
MHBS(D)-250	LN03A

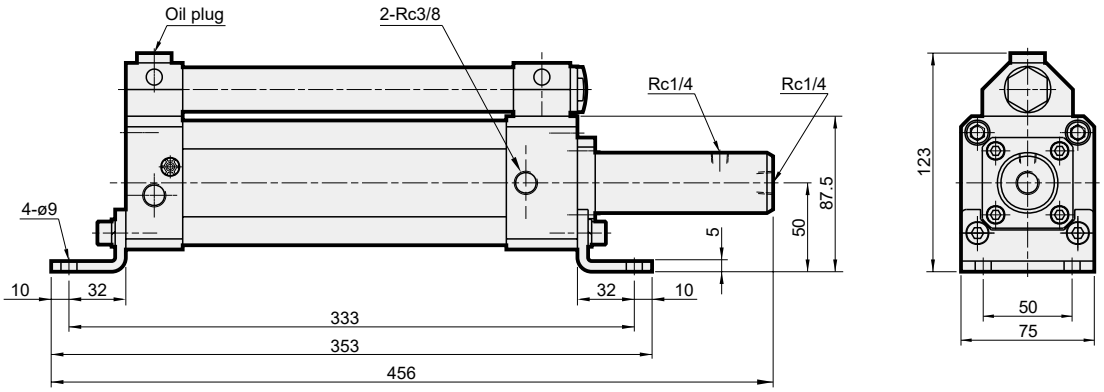


Booster weight

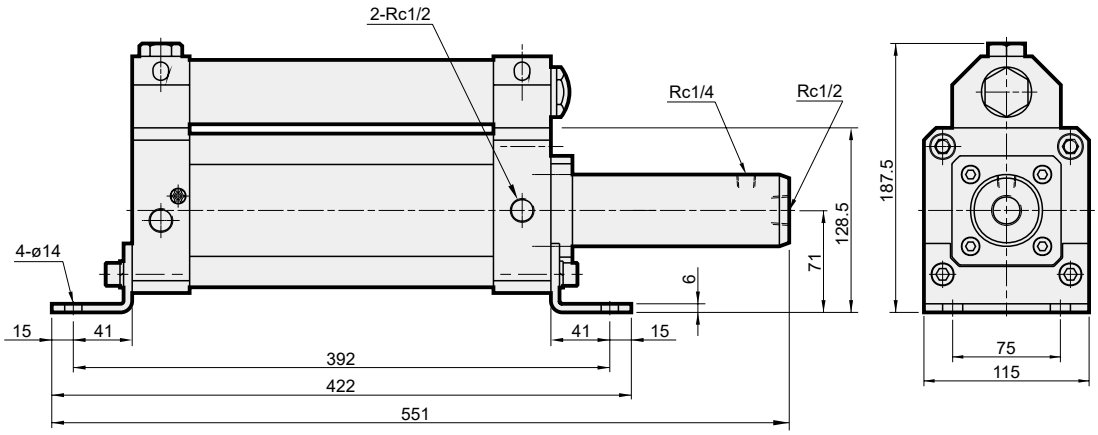
Unit: kg

Type	**MHBS**	**MHBD**
		
078	3.4	3.1
110	10.1	9.1
250	20.0	18.0

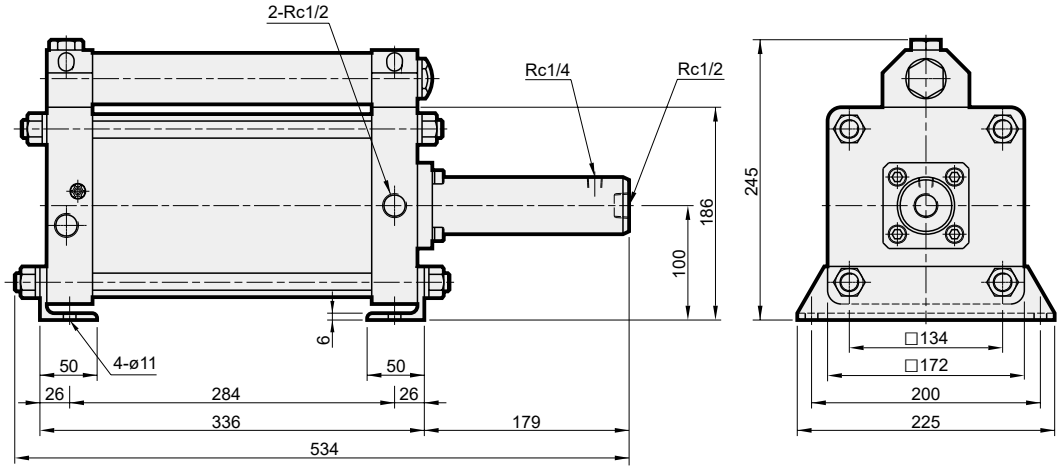
MHBS-078



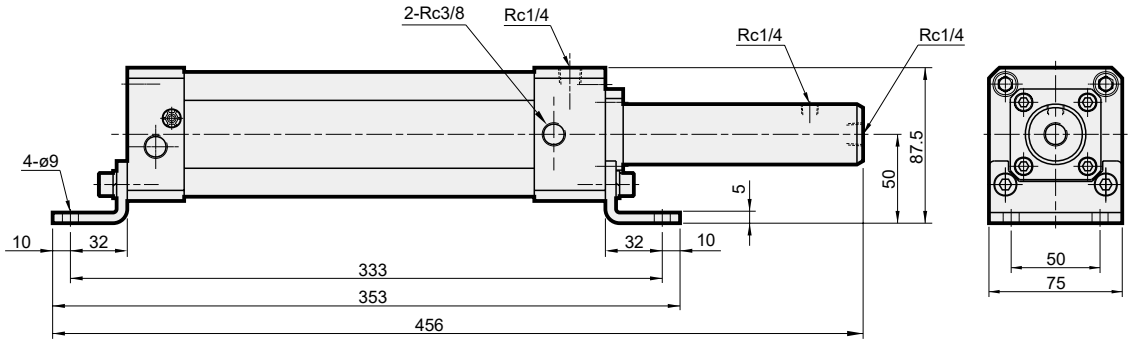
MHBS-110



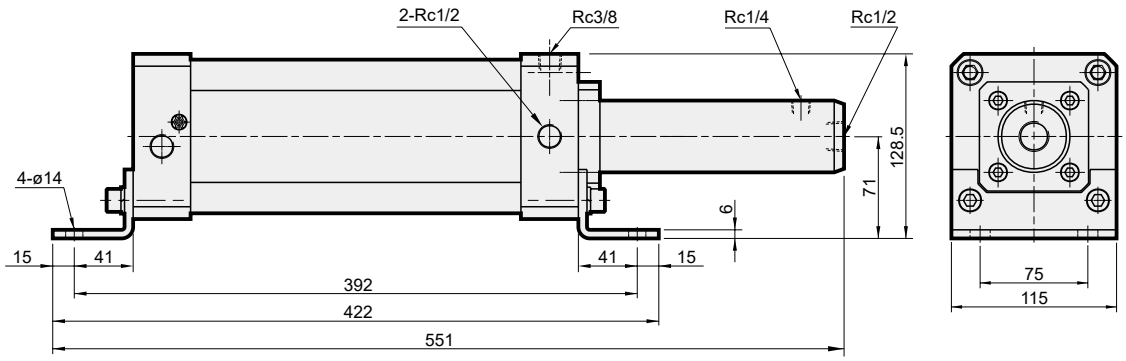
MHBS-250



MHBD-078



MHBD-110



MHBD-250

