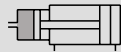




**MHBS** Single pressure type

**MHBD** Dual pressure type

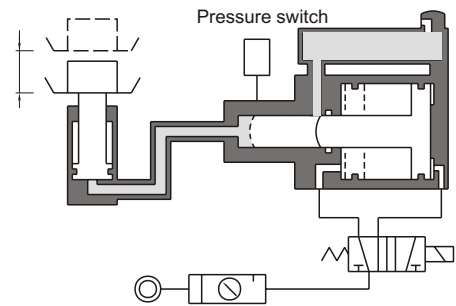


### Features:

- 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.

### Single pressure booster

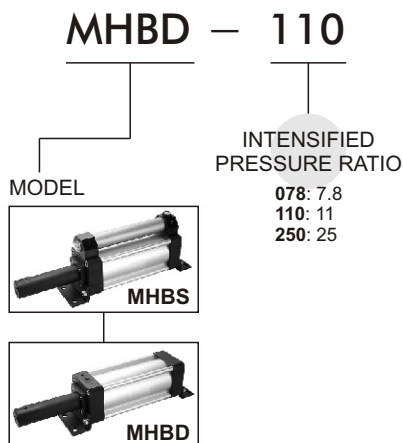
Optimum for high output, short stroke cylinder.



### Specification

| Model                               | Single pressure type         |          |          | Dual pressure type |          |          |
|-------------------------------------|------------------------------|----------|----------|--------------------|----------|----------|
|                                     | MHBS-078                     | MHBS-110 | MHBD-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      |
| Ambient temperature                 | + 5~ + 60 ℃ (No freezing)    |          |          |                    |          |          |
| Operating pressure range            | 2~7 kgf/cm <sup>2</sup>      |          |          |                    |          |          |
| Driving fluid                       | Hydraulic work oil viscosity |          |          |                    |          |          |
| Mounting form                       | Side foot type               |          |          |                    |          |          |

### Order example:



### The method of calculation ( Booster consumption )

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

$$P2 = R \times P$$

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

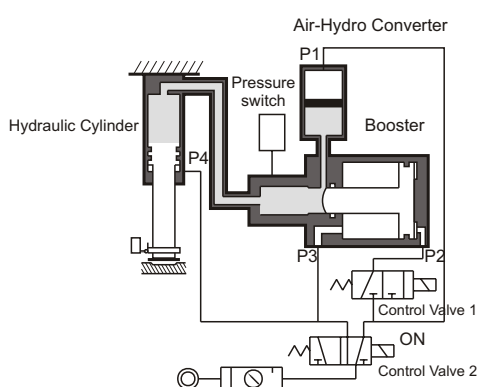
|     |                            |                    |
|-----|----------------------------|--------------------|
| A:  | Piston area                | (mm <sup>2</sup> ) |
| D:  | Piston I.D.                | (mm)               |
| F:  | Cylinders force            | (N)                |
| P:  | Air pressure               | (MPa)              |
| P2: | Intensified pressure       | (MPa)              |
| R:  | Intensified pressure ratio |                    |

### Dual pressure booster

### Points in usage

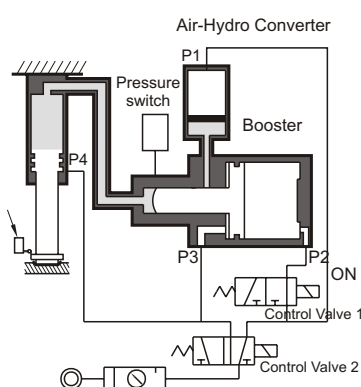
- The booster must be levelled.
- Standard booster are designed for use with petroleum base hydraulic oil.
- The booster must be higher than the work cylinder.
- Frequency of use should be 6 times/min or lower.

① Quick traverse



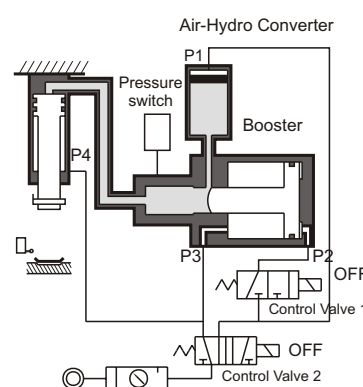
When the air is charged from the port P1, the oil in the tank will forward the hydraulic cylinder quickly. The pressure is the same as the air pressure, but the inflow of oil is large in volume.

② Intensified feeding



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



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.

### 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

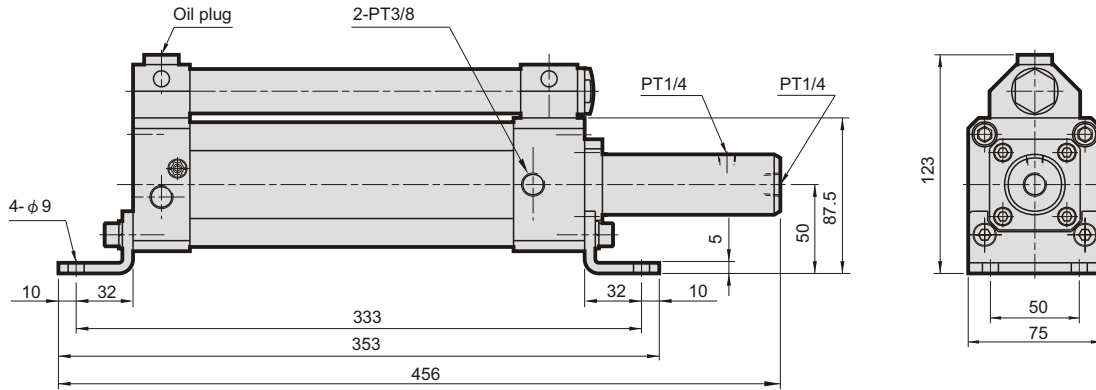
| Model    | Code       |
|----------|------------|
| MHBS-078 | MHBSSK-078 |
| MHBD-078 | MHBDSK-078 |
| MHBS-110 | MHBSSK-110 |
| MHBD-110 | MHBDSK-110 |
| MHBS-250 | MHBSSK-250 |
| MHBD-250 | MHBDSK-250 |

### Booster weight

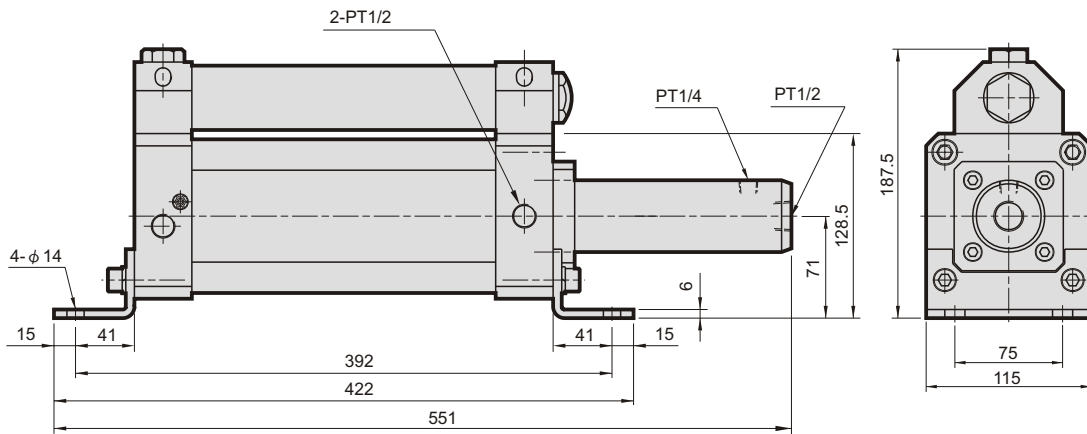
unit: kg

| Type | MHBS | MHBD |
|------|------|------|
|      | 078  | 3.4  |
| 110  | 10.1 | 9.1  |
| 250  | 34.5 | 33.5 |

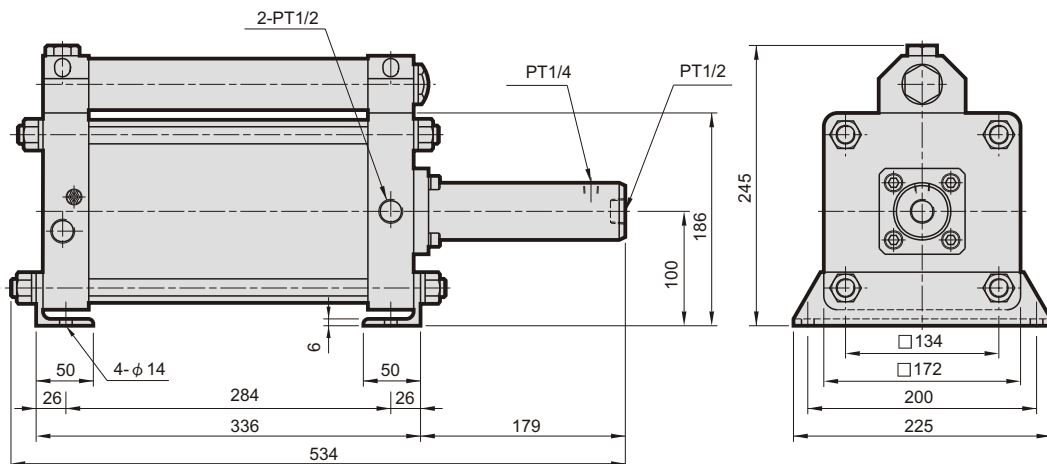
### MHBS-078



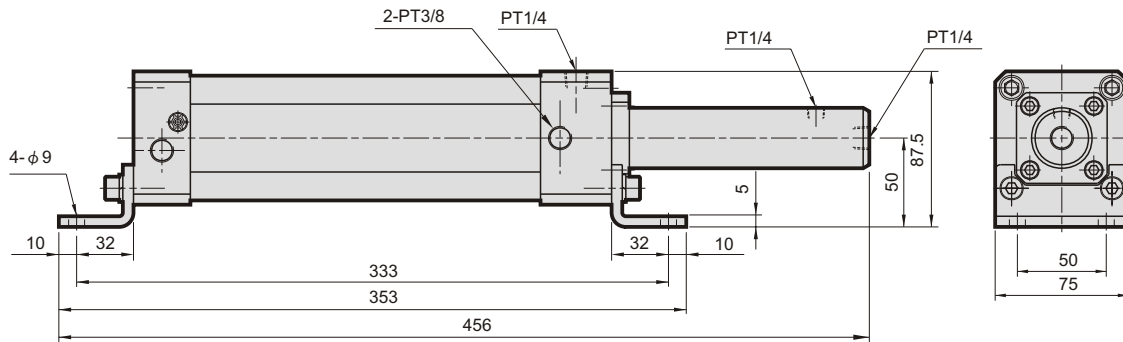
### MHBS-110



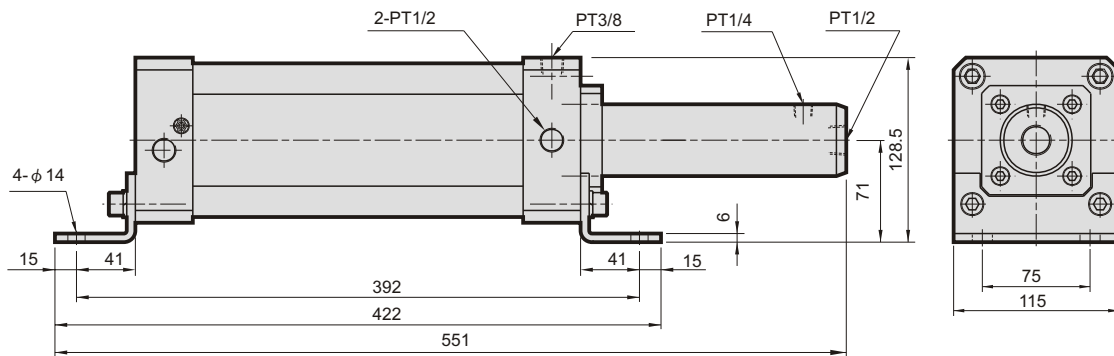
### MHBS-250



### MHBD-078



### MHBD-110



### MHBD-250

