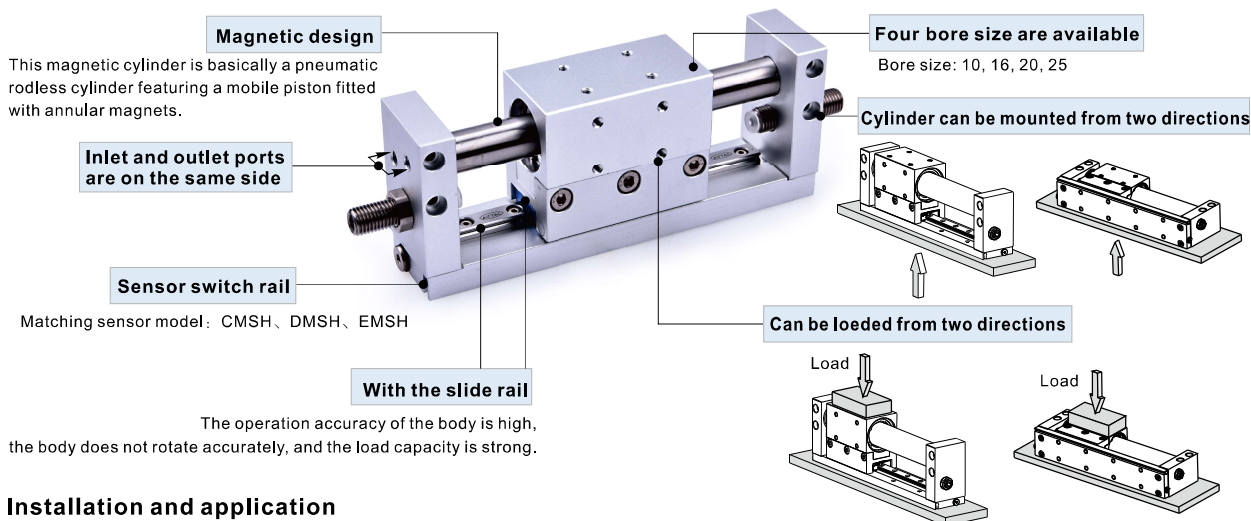




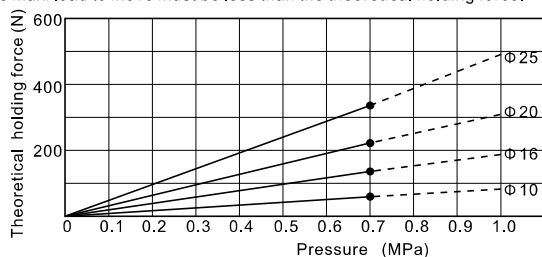
# Rodless magnetic cylinder(With Linear guide)—RMH Series

## Compendium of RMH Series

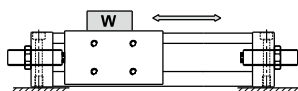


## Installation and application

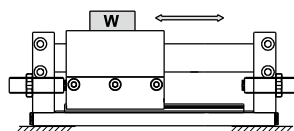
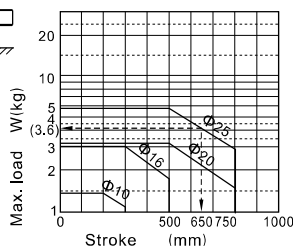
1. The maxi load to move must be less than the theoretical holding force.



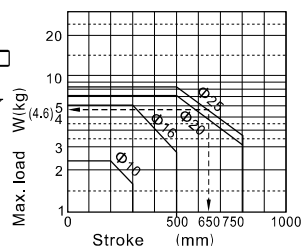
2. The relation between loading and stroke as below (Loading center and slide table center must be superposition)



| Bore size | Max. Load W(kg) | Stroke scope |
|-----------|-----------------|--------------|
| 10        | 1.4             | ~200mm       |
| 16        | 3               | ~300mm       |
| 20        | 3.6             | ~500mm       |
| 25        | 4.8             | ~500mm       |



| Bore size | Max. Load W(kg) | Stroke scope |
|-----------|-----------------|--------------|
| 10        | 2.4             | ~200mm       |
| 16        | 5               | ~300mm       |
| 20        | 6               | ~500mm       |
| 25        | 8               | ~500mm       |



3. About adjusting screw:

RMH series is compacted with two adjusting screws, but you can replace them with oil shock absorber by conditions.

| Bore size | Shock absorber type |
|-----------|---------------------|
| 10        | ACA0806-1           |
| 16        | ACA1007-1           |
| 20        | ACA1007-1           |
| 25        | ACA1412-1           |

4. When use external limiter to stop load middle way: please refer to RMS series.

5. Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of impurities into the cylinder.

6. The medium used by cylinder shall be filtered to 40μm or below.

7. If the cylinder is dismantled and stored for a long time, pay attention to conduct anti-rust treatment to the surface.

Anti-dust jam cap shall be added in air inlet and outlet ports.

8. Non-magnetically conductive materials are recommended for workpieces fitted to the cylinder, otherwise the lifetime may be halved if magnetically conductive materials are used.



# Rodless magnetic cylinder(With Linear guide)

## RMH Series

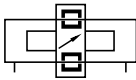


### Specification

| Bore size(mm)        | 10  | 16  | 20  | 25   |
|----------------------|---|-----|-----|------|
| Acting type          | Double acting   |     |     |      |
| Fluid                | Air(to be filtered by 40μm filter element)                              |     |     |      |
| Operating pressure   | 0.2~0.7MPa(28~100psi)(2~7bar)   |     |     |      |
| Proof pressure       | 1.2MPa(175psi)(12.0bar)   |     |     |      |
| Temperature °C       | -20~70  |     |     |      |
| Speed range mm/s     | 50~400  |     |     |      |
| Stroke tolerance mm  | 0~250 <sup>+1.0</sup> <sub>0</sub> 251~800 <sup>+1.5</sup> <sub>0</sub> |     |     |      |
| Cushion type         | Bumper  |     |     |      |
| Port size [Note1]    | M5×0.8  |     |     | 1/8" |
| Safe holding force N | 55  | 140 | 220 | 345  |

[Note1] G thread is available.

### Symbol



### Stroke

| Bore size (mm) | Standard stroke (mm) |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|----------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 10             | 50                   | 100 | 150 | 200 | 250 | 300 |     |     |     |     |     |     |     |     |  |  |
| 16             | 50                   | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |     |     |     |     |  |  |
| 20             | 50                   | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 750 | 800 |  |  |
| 25             | 50                   | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 750 | 800 |  |  |

[Note] Consult us for non-standard stroke.

### Product feature

1. This magnetic cylinder is basically a pneumatic rodless cylinder featuring a mobile piston fitted with annular magnets.  
The mobile carriage is also equipped with magnets to provide magnetic coupling (carriage/piston). The carriage slide freely along the main tube.
2. It is dust-proof as the isolation between the carriage and piston.
3. It is compact in space.
4. The non adjustable rubber bumpers and the adjustable pneumatic cushioning on both ends of the cylinder ensure the smooth action.
5. With the slide rail, the operation accuracy of the body is high, the body does not rotate accurately, and the load capacity is strong.

### Ordering code

**RMH 20 × 200 S G**

① ② ③ ④ ⑤

| ① Model   | ② Bore Size | ③ Stroke [Note1]                  | ④ Magnet       | ⑤ Thread type [Note2] |
|---|-------------|-----------------------------------|----------------|-----------------------|
| RMH: Rodless magnetic cylinder<br>(With linear guide) | 10 16 20 25 | Refer to stroke table for details | S: With magnet | G: G Thread           |

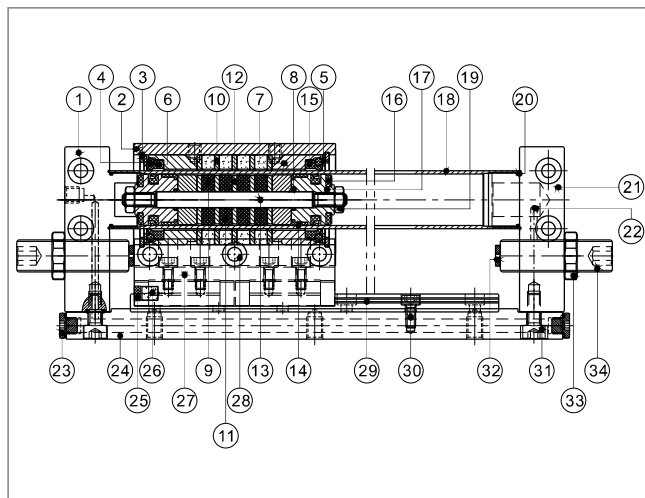
[Note1] Consult us for non-standard stroke.

[Note2] Blank on thread code means metric M thread. There is only metric thread for Φ10/Φ16.

# Rodless magnetic cylinder(With Linear guide)

## RMH Series

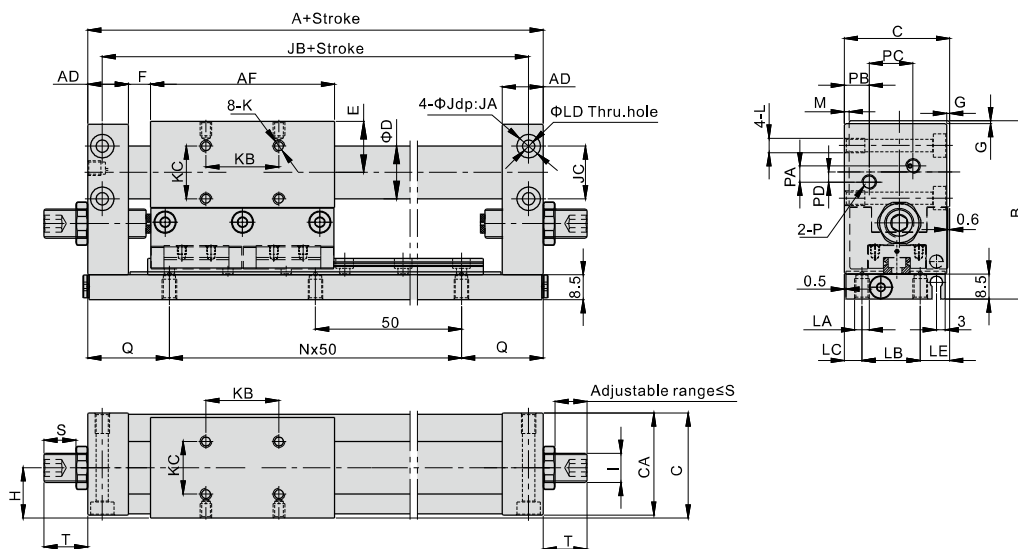
### Inner structure and material of major parts



| NO. | Item               | Material                | NO. | Item          | Material            |
|-----|--------------------|-------------------------|-----|---------------|---------------------|
| 1   | End cover          | Aluminum alloy          | 18  | Barrel        | Stainless steel     |
| 2   | Body               | Aluminum alloy          | 19  | Nut           | Stainless steel     |
| 3   | C Clip             | TPU                     | 20  | O-ring        | NBR                 |
| 4   | O-ring             | NBR                     | 21  | End cover     | Aluminum alloy      |
| 5   | Washer             | Stainless steel         | 22  | Steel ball    | Stainless steel     |
| 6   | Scraping dust ring | Plastics                | 23  | Plunger screw | Carbon steel        |
| 7   | Cover              | Aluminum alloy          | 24  | Fixed block   | Aluminum alloy      |
| 8   | O-ring             | NBR                     | 25  | Push block    | Plastics            |
| 9   | Magnet             | Rare-earth material     | 26  | Magnet        | Rare-earth material |
| 10  | Magnet washer      | Carbon steel            | 27  | Joining block | Aluminum alloy      |
| 11  | Magnet             | Rare-earth material     | 28  | Bolt          | Alloy steel         |
| 12  | Magnet washer      | Carbon steel            | 29  | Linear rail   | -                   |
| 13  | Connecting rod     | Stainless steel         | 30  | Bolt          | Alloy steel         |
| 14  | Wear ring          | Wear resistant material | 31  | Bolt          | Alloy steel         |
| 15  | Piston seal        | TPU                     | 32  | Bumper        | TPU                 |
| 16  | Bumper             | NBR                     | 33  | Nut           | Alloy steel         |
| 17  | Piston             | Aluminum alloy          | 34  | Bolt          | Alloy steel         |

Note: inner structure & material data sheet is based on certain bore size.  
Please contact AirTAC if you need inner structure & material data sheet for specific bore size.

### Dimensions



| Type\Item | A   | AD   | AF | B  | C  | CA | D    | E    | F    | G | H    | I       | J   | JA  | JB  | JC | K          | KB | KC | L          | LA         | LB | LC |
|-----------|-----|------|----|----|----|----|------|------|------|---|------|---------|-----|-----|-----|----|------------|----|----|------------|------------|----|----|
| RMH10     | 86  | 10.5 | 52 | 52 | 30 | 29 | 12   | 14   | 6.5  | 1 | 14   | M8X1.0  | 6   | 3.5 | 78  | 14 | M3X0.5dp:4 | 20 | 15 | M4X0.7dp:6 | M4X0.7dp:6 | 16 | 4  |
| RMH16     | 106 | 14   | 63 | 61 | 36 | 35 | 18   | 17.5 | 7.5  | 1 | 17   | M10X1.0 | 8   | 4.5 | 96  | 18 | M4X0.7dp:5 | 25 | 18 | M5X0.8dp:7 | M5X0.8dp:7 | 20 | 6  |
| RMH20     | 124 | 14   | 76 | 71 | 39 | 38 | 22.8 | 20   | 10   | 1 | 18.5 | M10X1.0 | 9.5 | 5.5 | 112 | 17 | M4X0.7dp:5 | 40 | 22 | M6X1.0dp:8 | M6X1.0dp:8 | 22 | 5  |
| RMH25     | 137 | 17.5 | 77 | 76 | 45 | 43 | 27.8 | 22.5 | 12.5 | 2 | 21.5 | M14X1.5 | 9.5 | 5.5 | 124 | 20 | M5X0.8dp:6 | 40 | 28 | M6X1.0dp:8 | M6X1.0dp:8 | 26 | 7  |

| Type\Item | P      | LD  | LE | M   | PA  | PB  | PC   | PD  | Q    | S    | T    | N  |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----------|--------|-----|----|-----|-----|-----|------|-----|------|------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Stroke    |        |     |    |     |     |     |      |     |      |      |      | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 750 | 800 |
| RMH10     | M5X0.8 | 3.5 | 10 | 1.5 | 4   | 7.5 | 11   | 2   | 18   | 10.5 | 14.5 | 2  | 3   | 4   | 5   | 6   | 7   | -   | -   | -   | -   | -   | -   | -   | -   |
| RMH16     | M5X0.8 | 4.5 | 10 | 1.5 | 5.5 | 8.5 | 15   | 3.5 | 28   | 11   | 15   | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | -   | -   | -   | -   |
| RMH20     | 1/8"   | 5.5 | 12 | 1.5 | 0   | 10  | 18.5 | 0   | 37   | 8.5  | 12.5 | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 13  | 15  | 16  | 17  |
| RMH25     | 1/8"   | 5.5 | 12 | 1.5 | 0   | 11  | 22   | 0   | 43.5 | 16   | 22   | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 13  | 15  | 16  | 17  |