MiMA®

V202404-EN

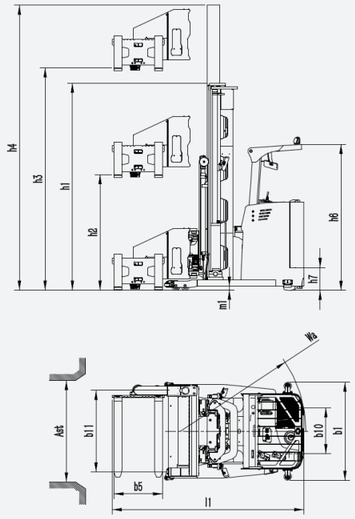
## Specifications

| | | | | | | |
|---|---|---|---|---|---|---|
| Characterization | | | | | | |
| 1.1 | Manufacturer | | MiMA | MiMA | MiMA | MiMA |
| 1.2 | Model | | MC12 | MC12SQ | MC16 | MC16SQ |
| 1.3 | Power Type | | Battery | Battery | Battery | Battery |
| 1.4 | Driving mode | | Stand-on | Stand-on | Stand-on | Stand-on |
| 1.5 | Rated Load | Q(kg) | 1200 | 1200 | 1600 | 1600 |
| 1.6 | Load Center Distance | C(mm) | 550 | 550 | 600 | 600 |
| 1.7 | Front Overhang | X(mm) | 658 | 658 | 666 | 666 |
| 1.8 | Wheelbase | y(mm) | 1640 | 1640 | 1700 | 1700 |
| Weight | | | | | | |
| 2.1 | Overall truck weight (including battery) | kg | 4860 | 5160 | 5330 | 5660 |
| Tire | | | | | | |
| 3.1 | Tire Type, Drive Side / Load Bearing Side | | PU | PU | PU | PU |
| 3.2 | Load tire | mm | φ140×100 | φ140×100 | φ140×127 | φ140×127 |
| 3.3 | Driver tire | mm | φ380×165 | φ380×165 | φ380×165 | φ380×165 |
| 3.4 | Stabilizer wheel size | mm | φ204×76 | φ204×76 | φ204×76 | φ204×76 |
| 3.5 | Number of wheels, front/rear (x=drive wheel) | | 4 /1X+2 | 4 /1X+2 | 4 /1X+2 | 4 /1X+2 |
| 3.6 | Drive wheelbase | b10(mm) | 726 | 726 | 726 | 726 |
| 3.7 | Load wheelbase | b11(mm) | 1210 | 1210 | 1280 | 1280 |
| Size | | | | | | |
| 4.1 | Mast closed height | h1(mm) | 2435 | 2635 | 2565 | 2765 |
| 4.2 | Free lifting height | h2(mm) | 0 | 1750 | 0 | 1750 |
| 4.3 | Lifting height | h3(mm) | 3000 | 4500 | 3000 | 4500 |
| 4.4 | Maximum height of the mast when lifting (including shelf) | h4(mm) | 3935 | 5440 | 4065 | 5570 |
| 4.5 | Height of roof rack | h6(mm) | 2260/2300 | 2260/2300 | 2260/2300 | 2260/2300 |
| 4.6 | Platform height | h7(mm) | 355 | 355 | 355 | 355 |
| 4.7 | Overall length | l1(mm) | 2940 | 2940 | 3020 | 3020 |
| 4.8 | Overall width | b1(mm) | 1475[1] | 1475[1] | 1575[1] | 1575[1] |
| 4.9 | Fork size | l/e/s(mm) | 1100/125/50 | 1100/125/50 | 1200/125/50 | 1200/125/50 |
| 4.10 | Installation class | | II A | II A | II A | II A |
| 4.11 | Fork Outside Distance | b5(mm) | 265~765 | 265~765 | 265~765 | 265~765 |
| 4.12 | Minimum Ground Clearance | m1(mm) | 60 | 60 | 60 | 60 |
| 4.13 | Minimum stacking aisle width | Ast(mm) | 1500[2] | 1500[2] | 1600[2] | 1600[2] |
| 4.14 | Turning radius | Wa(mm) | 1910 | 1910 | 1980 | 1980 |
| 4.15 | Minimum main aisle width | Wa(mm) | ≥(3350+350)[3] | ≥(3350+350)[3] | ≥(3450+350)[3] | ≥(3450+350)[3] |
| Performance | | | | | | |
| 5.1 | Driving speed, load/un loaded | km/h | 7.5/8 | 7.5/8 | 7.5/8 | 7.5/8 |
| 5.2 | Lifting speed,load/un loaded | mm/s | 260/300 | 260/300 | 260/300 | 260/300 |
| 5.3 | Lowering speed,load/un load | mm/s | 360/390 | 360/390 | 360/390 | 360/390 |
| Driving | | | | | | |
| 6.1 | Drive motor power (S2-60min) | kw | 5.5 AC | 5.5 AC | 5.5 AC | 5.5 AC |
| 6.2 | Lifting motor power(S3-15%) | kw | 15 AC | 15 AC | 15 AC | 15 AC |
| 6.3 | Battery voltage/rated capacity | V/Ah | 48/390[4] | 48/390[4] | 48/480[4] | 48/480[4] |
| 6.4 | Battery weight (min) | kg | 618 | 618 | 726 | 726 |
| 6.5 | Steering system | | EPS | EPS | EPS | EPS |
| Others | | | | | | |
| 7.1 | Battery replacement | | Side-pull | Side-pull | Side-pull | Side-pull |

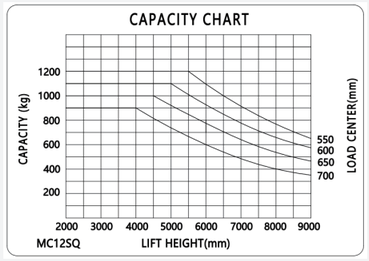
*Standard model data, subject to change depending on configuration

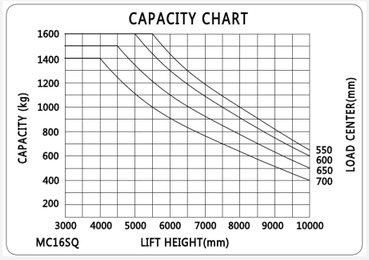
[1]: The overall width of MC12 model without guide wheel is 1370mm, and 1470mm for MC16 model;
[2]: Stacking aisle width +50mm for models with optional magnetic navigation function
[3]:Safe distance +350mm for the width of the main aisle;
[4]: Optional lithium battery specifications: 48V/300Ah.

## 2D View




## Load Chart





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MiMA®
Min. Space Max. Performance

BANYITONG SCIENCE & TECHNOLOGY DEVELOPING CO.,LTD.
Since 1994

# 3-Way Pallet Stacker

# (Stand on)

## MC12/16

**Load Capacity: 1200kg/1600kg**

www.mimaforklift.com

# Features

### High-strength mast

- H-shaped mast made of channel steel, sturdy and durable .
- Large cross-section design for high-strength masts.
- Outstanding high-level load capacity, with reduced swaying of the mast .
- Improved safety for high-level stacking.

### Navigation modes

- Mechanical guide rail mode: Beams are installed at the bottom of the shelves, and guide rails are installed on the ground inside the aisles. Vehicles travel along the tracks in the aisles, ensuring efficient and safe operation.
- Magnetic navigation mode (optional): Saves bottom beams. Goods can be directly placed on the ground without the need for ground guide rails, reducing warehouse construction costs.

### Higher efficiency

- Equipped with pure electric three-way fork head for safe, reliable, smooth, and efficient operation
- Pure electronic steering system for energy efficiency
- Standard fork view system for safer and more efficient stacking operations
- 48V maintenance-free full AC system for faster, more precise vehicle response, higher efficiency, and energy saving, meeting the requirements of heavy working conditions.

### Higher safety

- Equipped with advanced imported brand controllers for enhanced stability and safety
- Narrow mast and open slide design provide drivers with excellent visibility while ensuring sufficient rigidity
- Equipped with driving wheel angle display function for easier operation
- Optional features such as height preselection, addressing, end-of-aisle deceleration, and parking meet customer demands for efficiency and safety.

**Stand-on driving operation**

- Human-machine engineering design with backrest, leg rest, and armrest, enhancing operational comfort and reducing fatigue.
- Spacious stand-on driving space for easier operation.

**Electric proportional handle**

- High reliability, easy operation, and quick response.
- Good flexibility with precise control capability, allowing for quick adjustments to adapt to various complex and changing conditions.
- Easy maintenance and environmentally friendly, contributing to energy savings.

**Control panel**

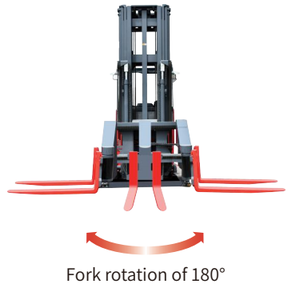
- Rational human-machine layout for convenient operation.
- High-definition display screen with wheel display function for enhanced safety.
- Joystick operation for convenient and quick control.

### The fork can rotate 180° and move left and right, making picking up goods more efficient.

The forklift can freely rotate 180° and move left and right, without the need for turning in the warehouse shelves of ultra-narrow 1.5m/1.6m aisles when picking up goods with the fork, making the operation simple and convenient, significantly improving storage efficiency.

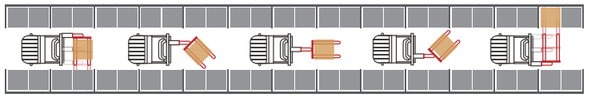
### Ultra-low energy consumption, super-strong power, and ultra-long endurance.

The forklift adopts a 48V full AC maintenance-free system, providing quicker and more precise response, lower current, lower energy consumption, meeting the requirements of heavy-duty operations, and reducing later maintenance costs. Advanced imported controllers and core hydraulic components ensure stability, reliability, higher efficiency, and more stable performance.

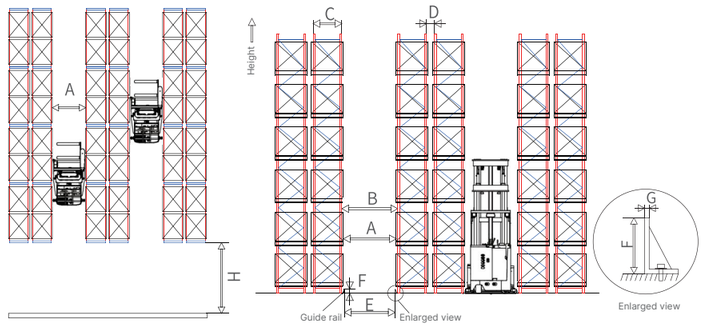


Fork rotation of 180°

Fork lateral movement



## Rack and Aisle Dimensions




## Dimension Sheet

| Installation-type guide rail | MC12 | | | MC16 | | |
|---|---|---|---|---|---|---|
| Pallet size | 1000×1000<br>1000×1200 | 1100×1100 | 1200×1200<br>1000×1200 | 1000×1000<br>1000×1200 | 1100×1100 | 1200×1200<br>1000×1200 |
| Load center | C500 | C550 | C600 | C500 | C550 | C600 |
| Fork length | 1000 | 1100 | 1200 | 1000 | 1100 | 1200 |
| A Net width of aisle/ goods to goods distance | 1500/1550[1] | 1500/1550[1] | 1600/1650[1] | 1600/1650[1] | | |
| B Beam spacing between the rack | 1700/1750[1] | 1700/1750[1] | 1800/1850[1] | 1800/1850[1] | | |
| C Rack depth | 800 | 900 | 1000 | 800 | 900 | 1000 |
| D Rack back-to-back distance | ⩾300 | | | ⩾300 | | |
| H Main aisle width | ⩾3700 | | ⩾3800 | ⩾3800 | | |
| E Inner distance of the guide rail | 1480±5 | | | 1580±5 | | |
| F Guide rail height | ⩾100 | | | ⩾100 | | |
| G Guide rail thickness | ⩾8 | | | ⩾10 | | |

Note: (1) The net aisle dimensions are indicated for racks in magnetic navigation mode. The table above shows corresponding parameters under standard conditions. For specific conditions, please consult a professional sales engineer.

## Mast Specification

| **Duplex Mast** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | MC | 12-30 | 12-35 | 12-40 | 12-45 | 12-50 | 12-55 | 12-60 | | | |
| Lift height | h3(mm) | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | | | |
| Height of mast, extended (with load-backrest) | h4(mm) | 3935 | 4435 | 4935 | 5435 | 5935 | 6435 | 6935 | | | |
| Height of mast, lowered | h1(mm) | 2435 | 2685 | 2935 | 3185 | 3435 | 3685 | 3935 | | | |
| **Free Triplex Mast** | | | | | | | | | | | |
| Model | MC | 12SQ-45 | 12SQ-50 | 12SQ-55 | 12SQ-60 | 12SQ-65 | 12SQ-70 | 12SQ-75 | 12SQ-80 | 12SQ-85 | 12SQ-90 |
| Lift height | h3(mm) | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 | 7500 | 8000 | 8500 | 9000 |
| Height of mast, extended (with load-backrest) | h4(mm) | 5440 | 5940 | 6440 | 6940 | 7440 | 7940 | 8440 | 8940 | 9440 | 9940 |
| Height of mast, lowered | h1(mm) | 2635 | 2805 | 2970 | 3135 | 3305 | 3470 | 3635 | 3805 | 3970 | 4135 |
| Free lift height | h2(mm) | 1750 | 1910 | 2080 | 2250 | 2410 | 2580 | 2750 | 2910 | 3080 | 3250 |
| **Duplex Mast** | | | | | | | | | | | |
| Model | MC | 16-30 | 16-35 | 16-40 | 16-45 | 16-50 | 16-55 | 16-60 | | | |
| Lift height | h3(mm) | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | | | |
| Height of mast, extended (with load-backrest) | h4(mm) | 4065 | 4565 | 5065 | 5565 | 6065 | 6565 | 7065 | | | |
| Height of mast, lowered | h1(mm) | 2565 | 2815 | 3065 | 3315 | 3565 | 3815 | 4065 | | | |
| **Free Triplex Mast** | | | | | | | | | | | |
| Model | MC | 16SQ-45 | 16SQ-50 | 16SQ-55 | 16SQ-60 | 16SQ-65 | 16SQ-70 | 16SQ-75 | 16SQ-80 | 16SQ-85 | 16SQ-90 | 16SQ-95 | 16SQ-100 |
| Lift height | h3(mm) | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 | 7500 | 8000 | 8500 | 9000 | 9500 | 10000 |
| Height of mast, extended (with block) | h4(mm) | 5570 | 6070 | 6570 | 7070 | 7570 | 8070 | 8570 | 9070 | 9570 | 10070 | 10570 | 11070 |
| Height of mast, lowered | h1(mm) | 2765 | 2935 | 3100 | 3265 | 3435 | 3600 | 3765 | 3935 | 4100 | 4265 | 4435 | 4600 |
| Free lift height | h2(mm) | 1750 | 1910 | 2080 | 2250 | 2410 | 2580 | 2750 | 2910 | 3080 | 3250 | 3410 | 3580 |

*The data in the above table is the standard model data，If you have special application or problems, please contact us.