

3-Way Pallet Stacker

High-level dense storage solution for VNA warehouse

MC/MCA/MCC



MiMA[®]
Min Space,Max Performance



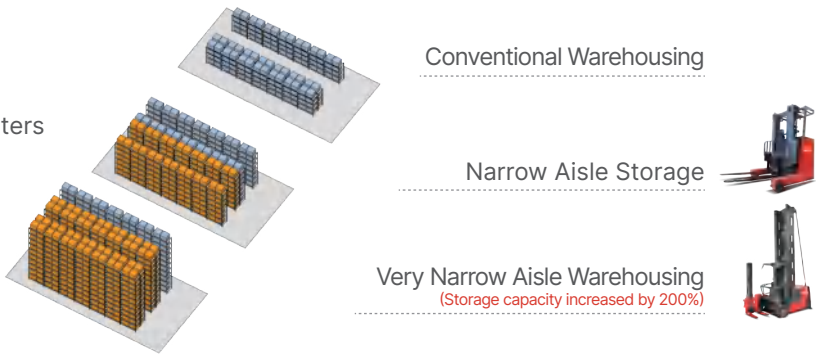


3-WAY PALLET STACKER

(MC08/12/16 MCA16 MCC12/14/16)

Banyitong Science & Technology Developing Co., Ltd. (MiMA) is the first company in the design, development, and sale of VNA (Very Narrow Aisle)3-way pallet stackers. As one of the earliest certified companies in China, MiMA successfully delivered over 3,000 3-way pallet stackers, making it a market leader in terms of shipment volume. In 2023, MiMA contributed to the compilation of the "Mechanical Industry Standard of the People's Republic of China -3-way Pallet Stackers Forklift" and holds over 40 patents for three-way pallet trucks. Our products are sold both domestically and internationally. The MiMA 3-way pallet stacker optimizes storage space utilization, enhances staff efficiency,and is your ideal warehouse assistant.

- The fork can be shifted sideways and rotated 180 degrees
- Narrower shelf aisles with down to 1.5 meters
- Maximum lifting height of 14.2 meters
- Increase warehouse capacity by 200%

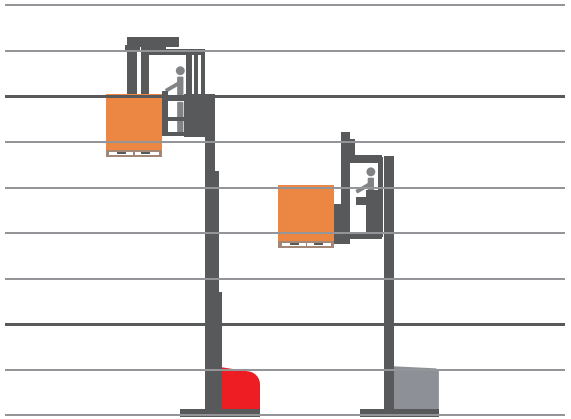


High Lifting Height

The MiMA 3-way pallet stacker offers exceptional lifting capabilities, with the man-up model reaching an impressive height of 14.2 meters. This feature significantly enhances your warehouse capacity.

Great Load Capacity

Powerful specialized mast structure design, great high position loading capacity. The mast adopts special H-type mast channel steel, central rail and frame type design to ensure structural strength and rigidity while improving the view, and significantly enhance the stability of high-position operation.

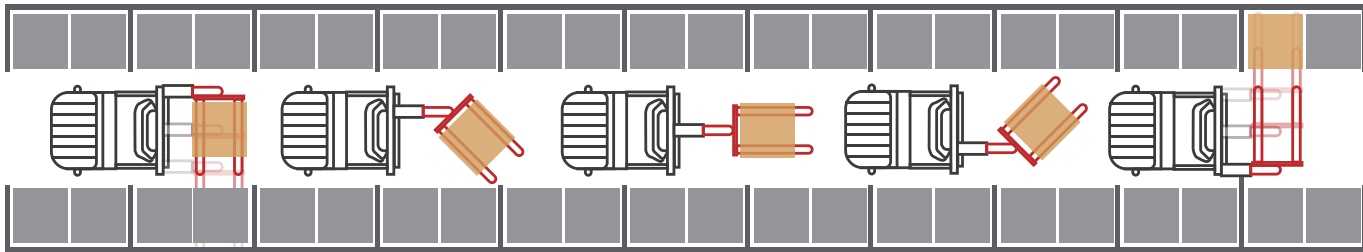
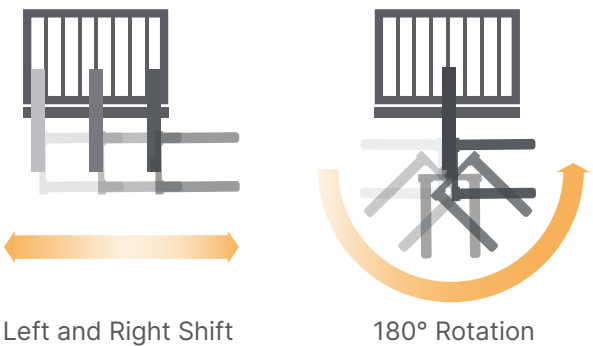


Forks can move sideways and rotate 180-Degree

With the capability to move forks sideways and rotate by 180 degrees, the MiMA 3-way pallet stacker allows for efficient stacking of goods on both the left and right sides in narrow aisles without turning. This feature significantly enhances warehouse utilization and operational efficiency.

Super Power, Extended Endurance

With high voltage and low current, the MiMA 3-way pallet stacker ensures longer operational endurance and reduce energy consumption. Equipped with maintenance-free AC motors for driving, steering, and lifting, the entire truck offers reliable performance.



MC08

Stand-on 3-way Pallet Stacker (0.8t/1.2t/1.6t)

MC08 is a 3-way pallet stacker designed for narrow aisle applications, capable of lifting goods to heightsof 3-6 meters. Its unique design allows for stacking and handling on both sides using fork rotation and side shift, eliminating the need for vehicle turning. Ideal for low-to-medium level narrow aisle stacking and mezzanine narrow aisle operations.



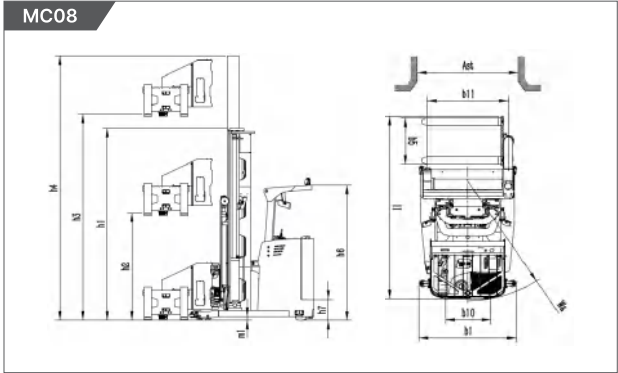
SPECIFICATION

Characteristics			
Brand		MIMA	MIMA
Product Model		MC	MC
Vehicle Model Code		MC08	MC08SQ
Power type		Battery	Battery
Operation		Stand-on	Stand-on
Rated Capacity	Q(kg)	800	800
Load center distance	C(mm)	550	550
Wheelbase	y(mm)	1350	1350
Weight			
Service Weight (incl. battery)	kg	/	/
Axle loading, laden, front/rear	kg	/	/
Axle loading, unladen, front/rear	kg	/	/
Wheel			
Tyre type		Polyurethane	Polyurethane
Tyre size, front	mm	φ127×92	φ127×92
Tyre size, rear	mm	φ343×108	φ343×108
Auxiliary wheel	mm	φ180×76	φ180×76
Wheels number, front/rear (X=driven)		4 / 1X+2	4 / 1X+2
Track width, front	b10(mm)	1231	1231
Track width, rear	b11(mm)	670	670
Dimension			
Mast retracted height	h1(mm)	refer to the mast specification	refer to the mast specification
Free Lift height (standard)	h2(mm)	0	refer to the mast specification
Lift height	h3(mm)	refer to the mast specification	refer to the mast specification
Mast extended height	h4(mm)	refer to the mast specification	refer to the mast specification
Overhead guard height	h6(mm)	2250	2250
Platform height	h7(mm)	300	300
Overall length	l1(mm)	2650	2650
Overall width	b1/ b2(mm)	1090/1370	1090/1370
Fork dimensions	l/e/s(mm)	1100/100/35	1100/100/35
Installation level(ISO2328)		II	
Fork carriage width	b3(mm)	790	790
Fork outside distance	b5(mm)	760~260	760~260
Width over guide rollers	b6(mm)	1475	1475
Side shift distance	b7(mm)	1180	1180

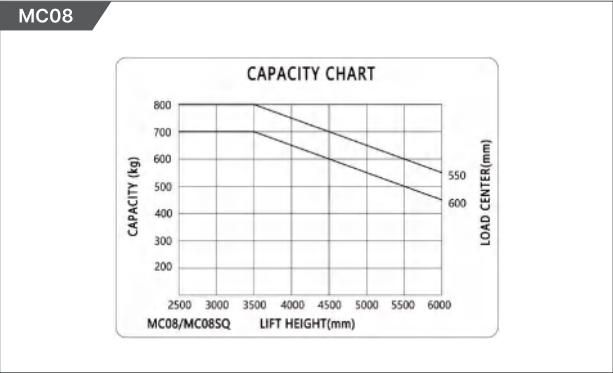
Ground clearance, center of wheelbase, laden	m2(mm)	50	50
Right angle stacking aisle width (1100×1100)	Ast(mm)	1500[1]	1500[1]
Turning radius	Wa(mm)	1650	1650
Distance from the fork rotation axis	l8(mm)	640	640
Main aisle width	mm	≥(3000+300)[2]	≥(3000+300)[2]
Performance			
Travel Speed, laden/unladen	km/h	7.5/8	7.5/8
Lifting Speed, laden/unladen	mm/s	320/320	320/320
Lowering Speed, laden/unladen	mm/s	320/320	320/320
Max straight gradeability, laden/unladen	%(tanθ)	5/8	5/8
Service brake		Mechanical/Regenerative	Mechanical/Regenerative
Parking brake		Mechanical	Mechanical
Drive			
Drive motor, rating S2=60	kw	4.5 AC	4.5 AC
Lift motor, rating S3=15%	kw	8.6 AC	8.6 AC
Battery voltage/nominal capacity K5	(V) / (Ah)	48/210[3]	48/210[3]
Battery weight	kg	387	387
Others			
Battery replacement method	/	Side-pull	Side-pull
Steering system	/	EPS	EPS

*This parameter table provides technical data for standard models only. For non-standard and other height series models, please consult Banyitong Science & Technology Developing Co., Ltd. Specifications and configurations are subject to change without prior notice.
[1]: The net aisle width applies to standard mechanical guide models (for magnetic navigation models, add 50mm to the stacking net aisle width); the above data may vary depending on operating conditions.
[2]: The main aisle width includes a safety margin; for mechanical guide models, the minimum main aisle width safety margin needs to be +300mm. For magnetic guide models, using manual tracking requires +300mm, and using automatic tracking requires +800mm. The above data varies based on pallet size.
[3]Optional lead-acid battery specifications: 48V/300AH; optional lithium battery specifications: 48V/230Ah.

2D VIEW



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MAST SPECIFICATION(MC08)

Type	Model	Lift height	Mast retracted height	Extended height	Free lift height
Duplex mast			mm		
	Model		MC08		
	60	6000	3845	6840	/
	55	5500	3595	6340	/
	50	5000	3295	5810	/
	45	4500	3045	5310	/
	40	4000	2795	4810	/
	35	3500	2495	4310	/
	30	3000	2250	3810	/
	Model		MC08SQ		
Triplex full free mast	60SQ	6000	2910	6830	2120
	55SQ	5500	2745	6330	1950
	50SQ	5000	2580	5830	1780
	45SQ	4500	2410	5330	1620
	40SQ	4000	2250	4830	1450

Note: For special custom-sized products, please contact us.

MC12/16

Stand-on 3-way Pallet Stacker (1.2t/1.6t)

The MC12/16 series forklift is a 3-way pallet stacker designed for high-level stacking in narrow aisle, with lifting height of 3.0-9.0m/ 3.0-10m. The stacking,loading, and unloading of goods on both sides of the aisle are realized through 180 rotation and left-rightside shift of the forks without body turning. Suitable for: Medium and high-level narrow aisle stacking.



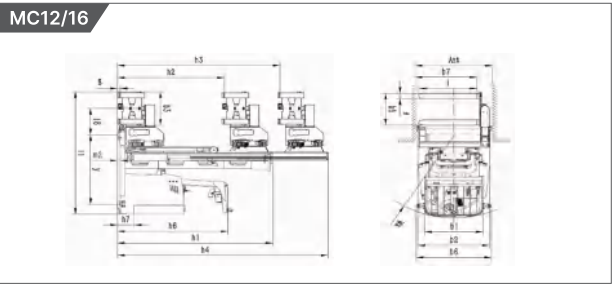
SPECIFICATION

Characteristics					
Manufacturer		MIMA	MIMA	MIMA	MIMA
Model		MC	MC	MC	MC
Model code		MC12	MC12SQ	MC16	MC16SQ
Power type		Battery	Battery	Battery	Battery
Operation		Stand-on	Stand-on	Stand-on	Stand-on
Load capacity	Q(kg)	1200	1200	1600	1600
Load center distance	C(mm)	550	550	600	600
Wheelbase	y(mm)	1640	1640	1700	1700
Weight					
Service Weight (incl. battery)	kg	/	/	/	/
Axle loading, laden, front/rear	kg	/	/	/	/
Axle loading, unladen, front/rear	kg	/	/	/	/
Wheel					
Tyre type		PU	PU	PU	PU
Tyre size, front	mm	φ140×100	φ140×100	φ140×127	φ140×127
Tyre size, rear	mm	φ380×165	φ380×165	φ380×165	φ380×165
Caster wheel	mm	φ204×76	φ204×76	φ204×76	φ204×76
Wheels,number front/rear (X=driven) +caster wheel		4 /1X+2	4 /1X+2	4 /1X+2	4 /1X+2
Track width, front	b10(mm)	1210	1210	1280	1280
Track width, rear	b11(mm)	726	726	726	726
Dimension					
Mast retracted height	h1(mm)	refer to the mast specification	refer to the mast specification	refer to the mast specification	refer to the mast specification
Free lift height	h2(mm)	0	refer to the mast specification	0	refer to the mast specification
Lift height	h3(mm)	refer to the mast specification	refer to the mast specification	refer to the mast specification	refer to the mast specification
Mast extended height	h4(mm)	refer to the mast specification	refer to the mast specification	refer to the mast specification	refer to the mast specification
Overhead guard height	h6(mm)	2260/2300	2260/2300	2260/2300	2260/2300
Pedal height	h7(mm)	355	355	355	355
Overall length	l1(mm)	2960	2960	3000	3000
Overall width	b1/ b2(mm)	1190/1370	1190/1370	1190/1470	1190/1470
Fork dimensions	l/e/s(mm)	1100/122/40	1100/122/40	1200/125/50	1200/125/50
Installation level(ISO2328)		II	II	II	II
Fork carriage width	b3(mm)	805	805	805	805
Fork outside spread	b5(mm)	762 ~ 262	762 ~ 262	765 ~ 265	765 ~ 265
Width over guide rollers	b6(mm)	1475	1475	1575	1575
Side shift distance	b7(mm)	1180	1180	1280	1280

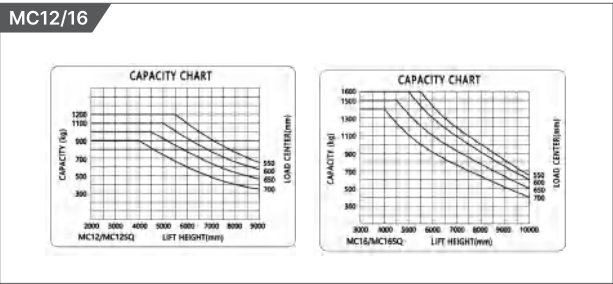
Ground clearance, center of wheelbase	m2(mm)	60	60	60	60
Aisle width with pallet (1100×1100)	Ast(mm)	1500[1]	1500[1]	1600[1]	1600[1]
Aisle width with pallet (1200×1200)	Ast(mm)	1600[1]	1600[1]	1600[1]	1600[1]
Turning radius	Wa(mm)	1910	1910	1980	1980
Distance to fork rotate axle	l8(mm)	680	680	650	650
Main aisle width	mm	≥(3350+350)[2]	≥(3350+350)[2]	≥(3450+350)[2]	≥(3450+350)[2]
Performance					
Travelling speed, laden/unladen	km/h	7.5/8	7.5/8	7.5/8	7.5/8
Lift speed, laden/unladen	mm/s	320/320	320/320	320/320	320/320
Lowering speed, laden/unladen	mm/s	340/340	340/340	340/340	340/340
Gradeability, laden/unladen	%(tanθ)	5/8	5/8	5/8	5/8
Service brake		Mechanical/ Regenerative	Mechanical/ Regenerative	Mechanical/ Regenerative	Mechanical/ Regenerative
Parking brake		Mechanical	Mechanical	Mechanical	Mechanical
Drive					
Drive motor, rating S2=60	kw	5.5 AC	5.5 AC	5.5 AC	5.5 AC
Lift motor, rating S3=15%	kw	15 AC	15 AC	15 AC	15 AC
Battery voltage/nominal capacity K5	(V) / (Ah)	48/390 ^[3]	48/390 ^[3]	48/480 ^[3]	48/480 ^[3]
Battery weight	kg	618	618	726	726
Others					
Battery replacement method	/	Side-pull	Side-pull	Side-pull	Side-pull
Steering system	/	EPS	EPS	EPS	EPS

*This parameter table only provides standard technical data. For non-standard and other high-end series models, please consult us. Specifications and configurations are subject to change without prior notice.
[1]: The clear stacking aisle width is applicable to standard mechanical guide rail models (magnetic navigation models, stacking aisle width + 50mm), and the above data varies depending on the different work conditions; [2]: The main aisle width safety clearance for mechanical guide rail models requires +350mm, for magnetic guide models requires +350mm with manual rail entry function, and +850mm with automatic rail entry function; [3]: Optional lithium battery: 48V/300Ah- 48V/400Ah.

2D VIEW



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MAST SPECIFICATION(MC12/16)

Mast type	Mast model		Lift height		Total Lift Height		Mast retracted height		Mast extended height		Free lift height	
	mm											
	Model		MC12/16									
Duplex mast	60	60	6000	6000	6000	6000	3935	4065	6935	7065	0	0
	55	55	5500	5500	5500	5500	3685	3815	6435	6565	0	0
	50	50	5000	5000	5000	5000	3435	3565	5935	6065	0	0
	45	45	4500	4500	4500	4500	3185	3315	5435	5565	0	0
	40	40	4000	4000	4000	4000	2935	3065	4935	5065	0	0
	35	35	3500	3500	3500	3500	2685	2815	4435	4565	0	0
	30	30	3000	3000	3000	3000	2435	2565	3935	4065	0	0
	Model		MC12SQ/MC16SQ									
Triplex full free mast	90SQ	100SQ	9000	10000	9000	10000	4135	4600	9940	11070	3250	3580
	85SQ	95SQ	8500	9500	8500	9500	3970	4435	9440	10570	3080	3410
	80SQ	90SQ	8000	9000	8000	9000	3805	4265	8940	10070	2910	3250
	75SQ	85SQ	7500	8500	7500	8500	3635	4100	8440	9570	2750	3080
	70SQ	80SQ	7000	8000	7000	8000	3470	3935	7940	9070	2580	2910
	65SQ	75SQ	6500	7500	6500	7500	3305	3765	7440	8570	2410	2750
	60SQ	70SQ	6000	7000	6000	7000	3135	3600	6940	8070	2250	2580
	55SQ	65SQ	5500	6500	5500	6500	2970	3435	6440	7570	2080	2410
	50SQ	60SQ	5000	6000	5000	6000	2805	3265	5940	7070	1910	2250
	45SQ	55SQ	4500	5500	4500	5500	2635	3100	5440	6570	1750	2080
		50SQ		5000		5000		2935		6070		1910
		45SQ		4500		4500		2765		5570		1750

Note: For special custom-sized products, please contact us.

MCA16

Seated 3-way Pallet Stacker (1.6t)

The MCA16 series forklift is a 3-way pallet stacker designed for narrow aisle stacking, with lifting height of 3-12m. Forks can be rotated and moved left-to-right to stack and pick from both sides without body turning. Suitable for: Medium and high-level narrow aisle stacking.



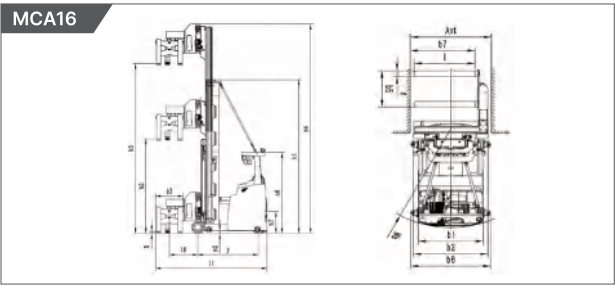
SPECIFICATION					
Characteristics					
Manufacturer		MiMA	MiMA	MiMA	MiMA
Model		MCA16	MCA16	MCA16	MCA16
Code		MCA16	MCA16SQ (Triplex full free mast)	MCA16F07	MCA16SQF07 (Triplex full free mast)
Power type		Battery	Battery	Battery	Battery
Operation		Seated	Seated	Seated	Seated
Load capacity	Q(kg)	1600	1600	1600	1600
Load center distance	C(mm)	600	600	600	600
Wheelbase	y(mm)	1800	1800	1800	1800
Weight					
Service weight(incl.battery)	kg	/	/	/	/
Axle loading, laden, front/rear	kg	/	/	/	/
Axle loading, unladen, front/rear	kg	/	/	/	/
Wheels					
Tyre type,front/rear		Polyurethane	Polyurethane	Polyurethane	Polyurethane
Tyre size, front	mm	φ343×150	φ343×150	φ343×150	φ343×150
Tyre size, rear	mm	φ400×160	φ400×160	φ343×120	φ343×120
Wheels,number front/rear (X=driven)		2 / 1X	2 / 1X	2 / 1X	2 / 1X
Track width, front	b10(mm)	1315	1315	1315	1315
Dimensions					
Mast retracted height	h1(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Free lift height	h2(mm)	0	Refer to the mast specification	0	Refer to the mast specification
Lift height	h3(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Mast extended height	h4(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Overhead guard height	h6(mm)	2250	2250	2250	2250
Pedal height	h7(mm)	620	620	620	620
Overall length	l1(mm)	3315	3315	3315	3315
Overall width	b1/ b2(mm)	1290/1470	1290/1470	1290/1470	1290/1470
Fork dimensions	l/e/s(mm)	1200/125/50	1200/125/50	1200/125/50	1200/125/50
Installation level		II B	II B	II B	II B
Fork carriage width	b3(mm)	805	805	805	805
Fork outside spread	b5(mm)	265~765	265~765	265~765	265~765
Width over guide rollers	b6(mm)	1575	1575	1575	1575
Side shift distance	b7(mm)	1280	1280	1280	1280
Ground clearance, center of wheelbase, laden	m2(mm)	80	80	80	80
Stacking aisle width pallet to pallet 1200×1200mm	Ast(mm)	1600[1]	1600[1]	1600[1]	1600[1]

Turning radius	Wa(mm)	2085	2085	2085	2085
Distance from the fork rotation axis	l8(mm)	845	845	845	845
Main aisle width with pallet 1200×1200mm	mm	≥(3800+400)[2]	≥(3800+400)[2]	≥(3800+400)[2]	≥(3800+400)[2]
Performance					
Travelling speed, laden/unladen	km/h	8/8	8/8	8/8	8/8
Lift speed, laden/unladen	mm/s	320/320	320/320	400/400	400/400
Lowering speed, laden/unladen	mm/s	340/340	340/340	420/420	420/420
Gradeability, unladen	%(tanθ)	5/8[3]	5/8[3]	5/8[3]	5/8[3]
Service brake		Regenerative brake/ hydraulic brake	Regenerative brake/ hydraulic brake	Regenerative brake/ hydraulic brake	Regenerative brake/ hydraulic brake
Parking brake		Electromagnetic brake	Electromagnetic brake	Electromagnetic brake	Electromagnetic brake
Drive					
Drive motor, rating S2=60	kw	8 AC	8 AC	8 AC	8 AC
Lift motor, rating S3=15%	kw	15 AC	15 AC	14 AC	14 AC
Battery voltage/nominal capacity K5	V/Ah	48/600	48/600	80/200	80/200
Battery weight	kg	945	945	126	126
Others					
Battery replacement method		Side pull	Side pull	Side pull	Side pull
Steering system		Electric power steering	Electric power steering	Electric power steering	Electric power steering

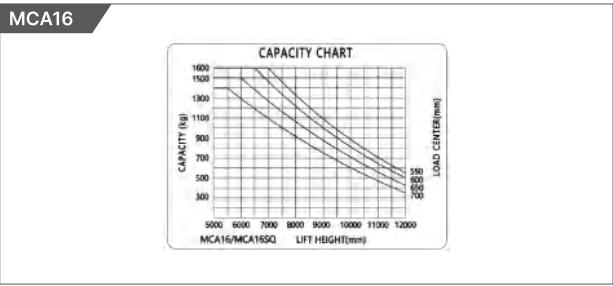
**This parameter table provides technical data for standard models only. For non-standard and other height series models, please consult Banyitong Science & Technology Developing Co., Ltd. Specifications and configurations are subject to change without prior notice.

[1]: The net channel width is applicable to standard mechanical guide rail models (magnetic navigation model, stacking net channel width + 50mm), the above data varies depending on the use conditions;[2]: The main channel width safety margin of the mechanical guide rail model needs to be +400mm, the magnetic guidance model needs to be +400mm when using the manual rail entry function, and +900mm when using the automatic rail entry function;[3]:The gradeability parameter only indicates the vehicle's climbing capability; the vehicle is not permitted to operate on slopes.[4]: ① The MCA16/MCA16SQ models are equipped with a standard 48V/600Ah lead-acid battery. Optional lead-acid battery specifications: 48V/880Ah. Optional lithium battery specifications: 48V/460Ah, 48V/600Ah. ② The MCA16F07/MCA16SQF07 models are equipped with a standard 48V/200Ah lithium battery. Optional lithium battery specifications: 80V/300Ah, 80V/410Ah. Optional lead-acid battery specifications: 80V/400Ah.

2D VIEW



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MAST SPECIFICATION(MCA16)

Mast type	Mast model	Lifting height	Mast retracted height	Mast extended height	Free lifting height
Duplex mast	Model		mm		
	MCA16				
	60	6000	4065	7150	/
	55	5500	3815	6650	/
	50	5000	3565	6150	/
	45	4500	3315	5650	/
	40	4000	3065	5150	/
	35	3500	2815	4650	/
Triplex full free mast	30	3000	2565	4150	/
	Model	MCA16SQ			
	120SQ	12000	5265	13150	4250
	115SQ	11500	5100	12650	4080
	110SQ	11000	4935	12150	3910
	105SQ	10500	4765	11650	3750
	100SQ	10000	4600	11150	3580
	95SQ	9500	4435	10650	3410
	90SQ	9000	4265	10150	3250
	85SQ	8500	4100	9650	3080
	80SQ	8000	3935	9150	2910
	75SQ	7500	3765	8650	2750
	70SQ	7000	3600	8150	2580
	65SQ	6500	3435	7650	2410
	60SQ	6000	3265	7150	2250
	55SQ	5500	3100	6650	2080
	50SQ	5000	2935	6150	1910
	45SQ	4500	2765	5650	1750

Note: For customized specifications, please contact us.

MCC16U

Man-up Turret Truck(1.6t)

MCC16 series forklift is a man-up narrow aisle 3-way turret truck with rated capacity of 1.6 tons, main lifting height of 4.5-12.5m, auxiliary lifting height of 1.7m. The stacking, loading, and unloading of goods on both sides of the aisle are realized through 180°rotation and left-right side shift of the forks without body turning. The cab can be raised for high-level stacking, picking, inventory and other tasks. It offers both standing and seated operating modes, ensuring good operational visibility and functional expandability.



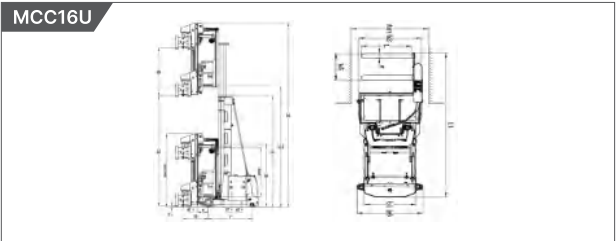
SPECIFICATION

Characteristics					
Manufacturer		MIMA	MIMA	MIMA	MIMA
Model		MCC-U	MCC-U	MCC-U	MCC-U
Technical code		1MCC16UT[1]-U[2]	1MCC16UH[1]-U[2]	1MCC16UT[1]-H[2]	1MCC16UH[1]-H[2]
Power type		Battery	Battery	Battery	Battery
Operation	Q(kg)	Stand on/Seated (man-up)	Stand on/Seated (man-up)	Stand on/Seated (man-up)	Stand on/Seated (man-up)
Load capacity	C(mm)	1600	1600	1600	1600
Load center distance	y(mm)	600	600	600	600
Wheelbase		2025	2250	2025	2250
Weights					
Service weight(incl.battery)	kg	/	/	/	/
Axle load with full load drive/load side	kg	/	/	/	/
Axle load without load drive/load side	kg	/	/	/	/
Wheels					
Tyre type,front/rear		Polyurethane	Polyurethane	Polyurethane	Polyurethane
Tyre size, front	mm	φ380×192	φ380×192	φ380×192	φ380×192
Tyre size, rear	mm	φ400×160	φ400×160	φ400×160	φ400×160
Wheels number front/rear (x=driven)+caster wheel		2 / 1X	2 / 1X	2 / 1X	2 / 1X
Track width, front	b11(mm)	1310	1310	1310	1310
Dimensions					
Mast retracted height	h1(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Free lift height (standard)	h2(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Lift height of main mast	h3(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Mast extended height	h4(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Total lift height	h3+h9(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Maximum picking height	h12+1600(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Overhead guard height	h6(mm)	2590	2590	2590	2590
Pedal height	h7(mm)	445	445	445	445
Auxiliary lift height	h9(mm)	2000[3]	2000[3]	2000[3]	2000[3]
Lift height of the station board from the ground	h12(mm)	h3+h7	h3+h7	h3+h7	h3+h7
Overall length	l1(mm)	3800	4025	3800	4025
Overall width	b1/ b2(mm)	1244/1502	1244/1502	1244/1502	1244/1502
Fork dimensions	l/e/s(mm)	1200/125/50	1200/125/50	1200/125/50	1200/125/50
Installation level(ISO2328)		II	II	II	II
Fork carriage width		740	740	740	740
Fork outside spread	b5(mm)	700~280	700~280	700~280	700~280

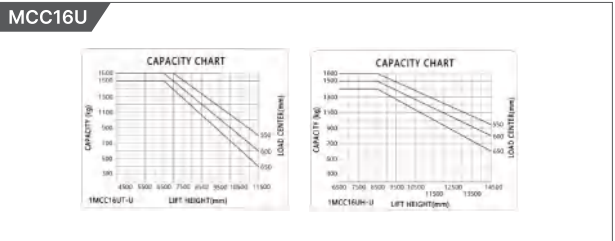
Width over guide rollers	b6(mm)	1575	1575	1575	1575
Side shift distance	b7mm	1300	1300	1300	1300
Ground clearance below mast	m1(mm)	95	95	95	95
Ground clearance, center of wheelbase	m2(mm)	80	80	80	80
Min Net Stacking aisle width pallet to pallet (1200×1200)	Ast(mm)	1650[4]	1650[4]	1650[4]	1650[4]
Turning radius	Wa(mm)	2310	2535	2310	2535
Distance between fork rotation center and front axle center	l8(mm)	1150	1150	1150	1150
Main aisle width	mm	≥(4175+400)[5]	≥(4400+400)[5]	≥(4175+400)[5]	≥(4400+400)[5]
Performance					
Travelling speed, laden/unladen	km/h	10/10	10/10	10/10	10/10
Lift speed, laden/unladen	mm/s	320/320	320/320	320/320	320/320
Lowering speed, laden/unladen	mm/s	400/380	400/380	400/380	400/380
Gradeability, laden/unladen (S2-5min)	%(tanθ)	5/8	5/8	5/8	5/8
Service brake		Regenerative brake/ Electromagnetic brake	Regenerative brake/ Electromagnetic brake	Regenerative brake/ Electromagnetic brake	Regenerative brake/ Electromagnetic brake
Parking brake		Electromagnetic brake	Electromagnetic brake	Electromagnetic brake	Electromagnetic brake
Drive					
Drive motor, rating S2=60	kw	8 AC	9.5 AC	8 AC	9.5 AC
Lift motor, rating S3=15%	kw	21 AC	21 AC	21 AC	21 AC
Lead acid battery, voltage/ nominal capacity	V/Ah	80/560[6]	80/700[7]	80/560[6]	80/700[7]
Battery weight	kg	1530	1840	1530	1840
Others					
Battery replacement method	/	Side pull	Side pull	Side pull	Side pull
Steering system	/	EPS	EPS	EPS	EPS

*This parameter table only provides technical data for standard models. For non-standard and other high-series models, please consult Hefei Banyitong Technology Development Co., Ltd. Standard model data will vary according to the configuration without notice.
[1]: Code T indicates a standard wheelbase three-stage gantry model, and H indicates a long wheelbase three-stage gantry model;[2] Code U denotes electric fork models, Code H denotes electro-hydraulic ones.[3]: Optional auxiliary lifting height series: 2000mm、 2160mm、 2500mm;; [4]: The clear channel width is applicable to standard mechanical guide model (magnetic guide model, stacking clear channel width + 50mm). The above data varies according to the use conditions.; [5]: The safety margin of the width of the main aisle of the magnetic guide model needs to be +900mm, and the mechanical guide model needs to be +400mm,the above data varies according to the size of the pallet; [6]: Optional lead-acid battery Specifications: 80V/460Ah or 80V/600Ah;; [7]: Optional lead-acid battery Specifications: 80V/600Ah.

2D VIEW



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MAST SPECIFICATION(MCC16U)

Type	Model	Lift height	Total Lift Height	Max order picker height	Mast retracted height	Extended height	Free lift height
Duplex mast	mm						
	Model	1MCC16UT-U/1MCC16UT-H					
	95SQ	9500	11500	11545	4655	12590	2025
	90SQ	9000	11000	11045	4475	12090	1845
	85SQ	8500	10500	10545	4295	11590	1665
	80SQ	8000	10000	10045	4125	11090	1495
	75SQ	7500	9500	9545	3955	10590	1325
	70SQ	7000	9000	9045	3785	10090	1155
	65SQ	6500	8500	8545	3615	9590	985
	60SQ	6000	8000	8045	3445	9090	815
	55SQ	5500	7500	7545	3275	8590	645
	50SQ	5000	7000	7045	3105	8090	475
	45SQ	4500	6500	6545	3075	7590	305
	Model	1MCC16UH-U/1MCC16UH-H					
	125SQ	12500	14500	14545	5735	15590	3105
Triplex full free mast	120SQ	12000	14000	14045	5555	15090	2925
	115SQ	11500	13500	13545	5375	14590	2745
	110SQ	11000	13000	13045	5195	14090	2565
	105SQ	10500	12500	12545	5015	13590	2385
	100SQ	10000	12000	12045	4835	13090	2205

Note: The data provided in the table above corresponds to standard configurations, where model 1MCC16UT-U represents an electric fork head with a standard wheelbase and three-stage mast, 1MCC16UH-U denotes an electric fork head with a long wheelbase and three-stage mast, 1MCC16UT-H indicates an electro-hydraulic fork head with a standard wheelbase and three-stage mast, and 1MCC16UH-H signifies an electro-hydraulic fork head with a long wheelbase and three-stage mast. For products requiring specially customized specifications, please contact our team.

MCC12

Man-up Turret Truck(1.2t)

The MCC12 series forklift is a man-up turret truck for VNA, with a rated load capacity of 1.2 tons. It features a main lift height of 3.5 to 8 meters and an auxiliary lift of 1.7 to 2.5 meters. The truck operates without turning the body; stacking and handling on both sides of the aisle are achieved via 180° fork rotation and lateral shifting. The liftable cabin supports high-level picking and inventory tasks, and offers both standing and seated operation modes. It provides excellent visibility and functional expandability for efficient warehouse operations.

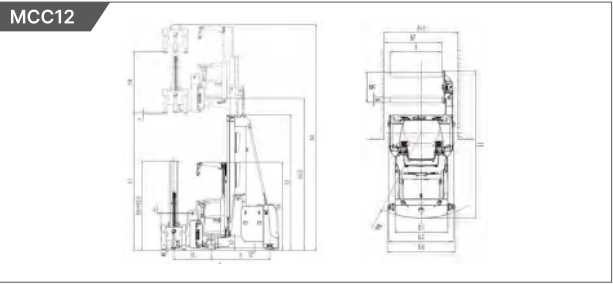


SPECIFICATION			
Characteristics			
Brand		MIMA	MIMA
Model		MCC	MCC
Vehicle Code		MCC12	MCC12SQ
Drive type		Battery	Battery
Operation type		Stand-on/Seated (Man-up)	Stand-on/Seated (Man-up)
Load capacity	Q(kg)	1200	1200
Load cnetr distance	C(mm)	600	600
Wheelbase	y(mm)	1815	1815
Weights			
Service weight (incl.battery)	kg	/	/
Axle loading, laden front/rear	kg	/	/
Axle loading, unladen front/rear	kg	/	/
Wheels			
Tyre type,front/rear		Polyurethane	Polyurethane
Tyre size, front	mm	φ343×150	φ343×150
Tyre size, rear	mm	φ343×140	φ343×140
Wheels, number front/rear (X=driven)		2 / 1X	2 / 1X
Front overhang	b10(mm)	1350	1350
Dimensions			
Mast retracted height	h1(mm)	Refer to the mast specification	Refer to the mast specification
Free Lift height (standard)	h2(mm)	0	Refer to the mast specification
Lift height	h3(mm)	Refer to the mast specification	Refer to the mast specification
Mast extended height	h4(mm)	Refer to the mast specification	Refer to the mast specification
Overall lift height	h3+h9(mm)	Refer to the mast specification	Refer to the mast specification
Overall lift height	h12+1600(mm)	Refer to the mast specification	Refer to the mast specification
Overhead guard height	h6(mm)	2550	2550
Platform height	h7(mm)	445	445
Additional lift height	h9(mm)	1780[1]	1780[1]
Platform height, raised	h12(mm)	h3+h7	h3+h7
Overall length	l1(mm)	3630	3630
Overall width	b1/ b2(mm)	1220/1500	1220/1500
Fork dimensions	l/e/s(mm)	1200/122/40	1200/122/40
Installation level(ISO2328)		Type II B	Type II B
Fork carriage width	b3(mm)	850	850
Fork outside distance	b5(mm)	350～805	350～805

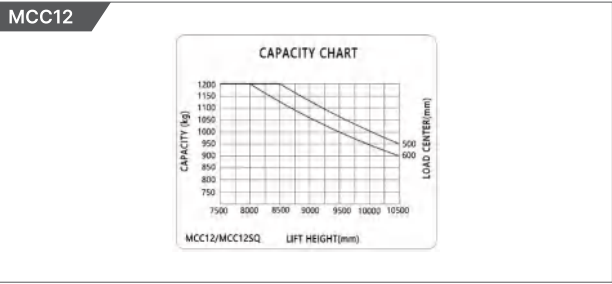
Width over guide rollers	b6(mm)	1575	1575
Side shift distance	b7(mm)	1300	1300
Ground clearance below mast, laden	m1(mm)	50	50
Ground clearance, center of wheelbase, laden	m2(mm)	80	80
Right angle stacking aisle width (1200×1200)	Ast(mm)	1650[2]	1650[2]
Turning radius	Wa(mm)	2070	2070
Distance from the fork rotation axis	l8(mm)	1140	1140
Main aisle width	mm	≥(3950+400)[3]	≥(3950+400)[3]
Performance			
Travelling speed, laden/unladen	km/h	8/8[4]	8/8[4]
Lift speed, laden/unladen	mm/s	380/440	380/440
Lowering speed, laden/unladen	mm/s	450/450	450/450
Gradeability, laden/unladen	%(tanθ)	5/8	5/8
Service brake		Regenerative brake/ Electromagnetic brake	Regenerative brake/ Electromagnetic brake
Parking brake		Electromagnetic brake	Electromagnetic brake
Drive			
Drive motor, rating S2=60	kw	8 AC	8 AC
Lift motor, rating S3=15%	kw	14 AC	14 AC
Battery voltage/nominal capacity K5	V/Ah	80/420[5]	80/420[5]
Battery weight	kg	1160	1160
Others			
Battery replacement method	/	Side pull	Side pull
Steering system	/	Electrical steering	Electrical steering

*This parameter table provides technical data for standard models only. For non-standard and other height series models, please consult Banyitong Science & Technology Developing Co., Ltd. Specifications and configurations are subject to change without prior notice.
[1]: Optional auxiliary lift heights: 2000mm, 2250mm, 2500mm. [2]: Net aisle width applies to standard models with mechanical guidance (for models with magnetic navigation, add 50mm to stacking aisle width). Values may vary depending on application conditions. [3]: Main aisle width includes safety clearance. For mechanical guidance models, add 400mm minimum safety clearance. For magnetic guidance models, add 400mm when using manual entry and 900mm when using automatic entry. Values may vary depending on pallet size. [4]: Optional electromagnetic front wheel brake available. Maximum travel speed (laden/unladen) up to 10 km/h. [5]: Optional lithium battery specifications: 80V/300Ah or 80V/420Ah.

2D VIEW



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MAST SPECIFICATION(MCC12)

Mast type	Mast model	Lift height	Total lifting height	Max. picking height	Mast retracted height	Mast extended height	Free lifting height
Duplex mast			mm				
	Model		MCC12				
	80L	8000	9780	10045	5285	10560	/
	75L	7500	9280	9545	5010	10050	/
	70L	7000	8780	9045	4735	9550	/
	65L	6500	8280	8545	4460	9050	/
	60L	6000	7780	8045	4185	8550	/
	55L	5500	7280	7545	3935	8050	/
	50L	5000	6780	7045	3685	7550	/
	45L	4500	6280	6545	3435	7050	/
	40L	4000	5780	6045	3185	6550	/
	35L	3500	5280	5545	2935	6050	/
	30L	3000	4780	5045	2685	5560	/
	Model		MCC12SQ				
	80SQ	8000	9780	10045	3940	10550	1340
Triplex full free mast	75SQ	7500	9280	9545	3765	10050	1165
	70SQ	7000	8780	9045	3590	9550	990
	65SQ	6500	8280	8545	3415	9050	815
	60SQ	6000	7780	8045	3240	8550	640
	55SQ	5500	7280	7545	3065	8050	465
	50SQ	5000	6780	7045	2890	7550	290
	45SQ	4500	6280	6545	2715	7050	115

Note: The data in the above table refers to standard models. For customized specifications, please contact us.

MCC14

Man-up Turret Truck(1.4t)

The MCC14F80 3-way pallet stacker is specially designed for cold storage environments above -25°C. It has a load capacity of 1400kg and a maximum lift height of up to 14200mm lifting height. Navigation modes include mechanical and electromagnetic options for narrow aisles in cold storage. The forks rotate 180° and shift laterally, optimizing narrow aisle stacking without vehicle turning. Special materials and large-diameter load wheels ensure strength and stability on wet floors, maximizing warehouse capacity.



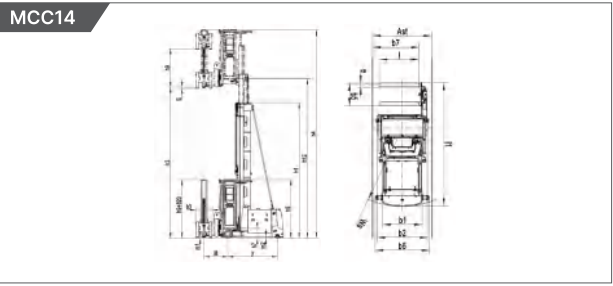
SPECIFICATION

Characteristics				
Brand		MIMA	MIMA	MIMA
Product Model		MCC14	MCC14	MCC14
Vehicle Model Code		MCC14F80	MCC14SQF80	MCC14HF80[1]
Power type		Battery	Battery	Battery
Operation		Stand-on/ Seated (Man-up)	Stand-on/ Seated (Man-up)	Stand-on/ Seated (Man-up)
Load center distance	Q(kg)	1400	1400	1400
Front overhang	C(mm)	600	600	600
Wheelbase	y(mm)	2150	2250	2330
Weights				
Service weight (incl.battery)	kg	/	/	/
Axle loading, laden front/rear	kg	/	/	/
Axle loading, unladen front/rear	kg	/	/	/
Wheels				
Tyre type,front/rear		Polyurethane	Polyurethane	Polyurethane
Tyre size, front	mm	φ380×192	φ380×192	φ380×192
Tyre size, rear	mm	φ400×160	φ400×160	φ400×160
Wheels, number front/rear (X=driven)		2 / 1X	2 / 1X	2 / 1X
Front overhang	b10(mm)	1310	1310	1310
Dimensions				
Mast retracted height	h1(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Free Lift height (standard)	h2(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Lift height	h3(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Mast extended height	h4(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Overall lift height	h3+h9(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Overhead guard height	h6(mm)	2635	2635	2635
Platform height	h7(mm)	445	445	445
Additional lift height	h9(mm)	1780 ^[2]	1780 ^[2]	1780 ^[2]
Platform height, raised	h12(mm)	Refer to the mast specification	Refer to the mast specification	Refer to the mast specification
Overall length	l1(mm)	3955	4030	4110
Overall width	b1/ b2(mm)	1244/1502	1244/1502	1244/1502
Fork dimensions	l/e/s(mm)	1200/125/50	1200/125/50	1200/125/50
Installation level(ISO2328)		Type II B	Type II B	Type II B
Fork carriage width	b3(mm)	790	790	790
Fork outside distance	b5(mm)	390~750	390~750	390~750
Width over guide rollers	b6(mm)	1575	1575	1575

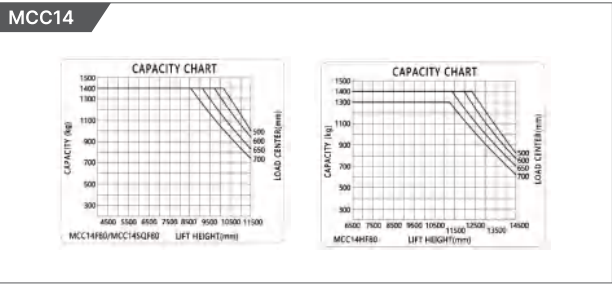
Side shift distance	b7(mm)	1300	1300	1300
Ground clearance below mast, laden	m1(mm)	45	45	45
Ground clearance, center of wheelbase, laden	m2(mm)	80	80	80
Right angle stacking aisle width (1200×1000)	Ast(mm)	1650[3]	1650[3]	1650[3]
Turning radius	Wa(mm)	2435	2535	2615
Distance from the fork rotation axis	l8(mm)	1120	1120	1120
Main aisle width	mm	≥(4325+400)[4]	≥(4400+400)[4]	≥(4480+400)[4]
Performance				
Travel Speed, laden/unladen	km/h	10/10[5]	10/10[5]	10/10[5]
Lifting Speed, laden/unladen	mm/s	320/320	320/320	320/320
Lowering Speed, laden/unladen	mm/s	400/380	400/380	400/380
Max straight gradeability, laden/unladen	%(tanθ)	5/8	5/8	5/8
Service brake		Regenerative brake/ Electromagnetic brake	Regenerative brake/ Electromagnetic brake	Regenerative brake/ Electromagnetic brake
Parking brake		Electromagnetic brake	Electromagnetic brake	Electromagnetic brake
Drive				
Drive motor, rating S2=60	kw	9.5 AC	9.5 AC	9.5 AC
Lift motor, rating S3=15%	kw	AC21	AC21	AC12
Battery voltage/nominal capacity K5	V/Ah	80/700	80/700	80/840
Battery weight	kg	1840	1840	2150
Others				
Battery replacement method	/	Side pull	Side pull	Side pull
Steering system	/	Electrical steering	Electrical steering	Electrical steering

*This parameter table provides technical data for standard models only. For non-standard and other height series models, please consult Banyitong Science & Technology Developing Co., Ltd. Specifications and configurations are subject to change without prior notice.
[1]: The code ""H"" indicates a type of triple mast vehicle with a long wheelbase and large capacity battery. [2]: The optional lift height series includes: 2000mm, 2250mm, and 2500mm. [3]: The net aisle width applies to standard mechanical guide models (for magnetic navigation models, add 50mm to the stacking net aisle width); the above data may vary depending on operating conditions. [4]: The main aisle width includes a safety margin; for mechanical guide models, the minimum main aisle width safety margin needs to be +400mm. For magnetic guide models, using manual tracking requires +400mm, and using automatic tracking requires +900mm. The above data varies based on pallet size. [5]: The travel speeds listed in the table represent the maximum speed under optimal conditions; specific travel speeds need to be set according to the actual working conditions.

2D VIEW



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MAST SPECIFICATION(MCC14)

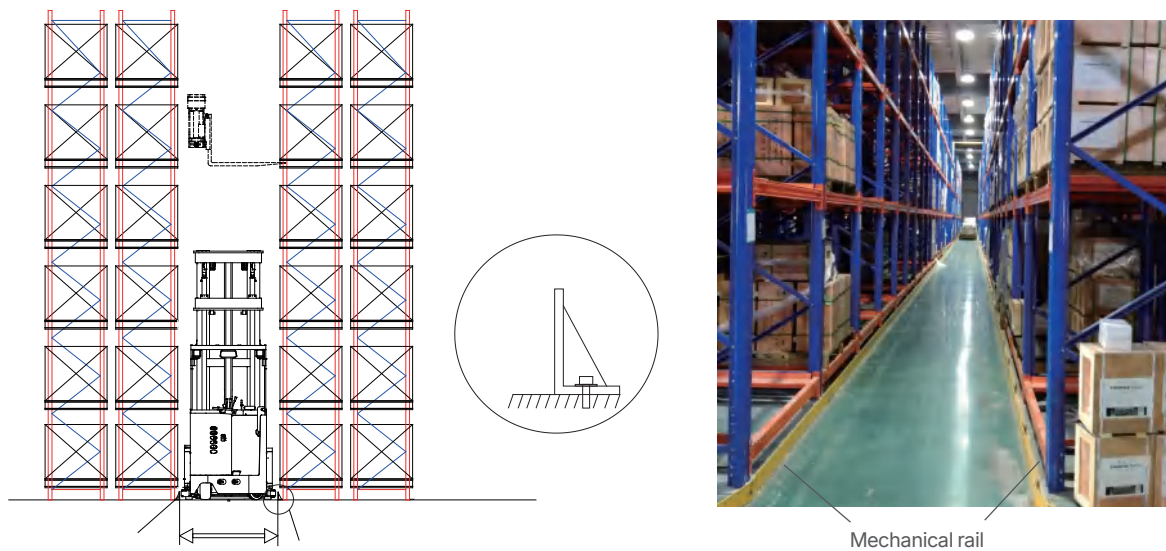
Mast type	Mast model	Lift height	Total lifting height	Platform height, raised	Max. picking height	Mast retracted	Mast extended	Free lifting height
Duplex mast	Model		mm					
			MCC12					
	95L	9500	11280	9945	/	6165	12155	/
	90L	9000	10780	9445	/	5915	11655	/
	85L	8500	10280	8945	/	5665	11155	/
	80L	8000	9780	8445	/	5415	10655	/
	75L	7500	9280	7945	/	5165	10155	/
	70L	7000	8780	7445	/	4915	9655	/
	65L	6500	8280	6945	/	4665	9155	/
	60L	6000	7780	6445	/	4415	8655	/
	55L	5500	7280	5945	/	4165	8155	/
	50L	5000	6780	5445	/	3915	7655	/
	45L	4500	6280	4945	/	3665	7155	/
Triplex full free mast	Model		MCC14SQF80/MCC14HF80					
	95SQ	9500	11280	9945	/	4655	12155	2000
	90SQ	9000	10780	9445	/	4475	11655	1820
	85SQ	8500	10280	8945	/	4295	11155	1640
	80SQ	8000	9780	8445	/	4125	10655	1470
	75SQ	7500	9280	7945	/	3955	10155	1300
	70SQ	7000	8780	7445	/	3785	9655	1130
	65SQ	6500	8280	6945	/	3615	9155	960
	60SQ	6000	7780	6445	/	3445	8655	790
	55SQ	5500	7280	5945	/	3275	8155	620
	50SQ	5000	6780	5445	/	3105	7655	450
	45SQ	4500	6280	4945	/	2935	7155	280
Triplex full free mast	Model		MCC14HF80					
	125SQ	12500	14280	12945	/	5735	15155	3080
	120SQ	12000	13780	12445	/	5555	14655	2900
	115SQ	11500	13280	11945	/	5375	14155	2720
	110SQ	11000	12780	11445	/	5195	13655	2540
	105SQ	10500	12280	10945	/	5015	13155	2360
	100SQ	10000	11780	10445	/	4835	12655	2180

Note: The data in the above table refers to standard models. For customized specifications, please contact us.

Navigation Mode

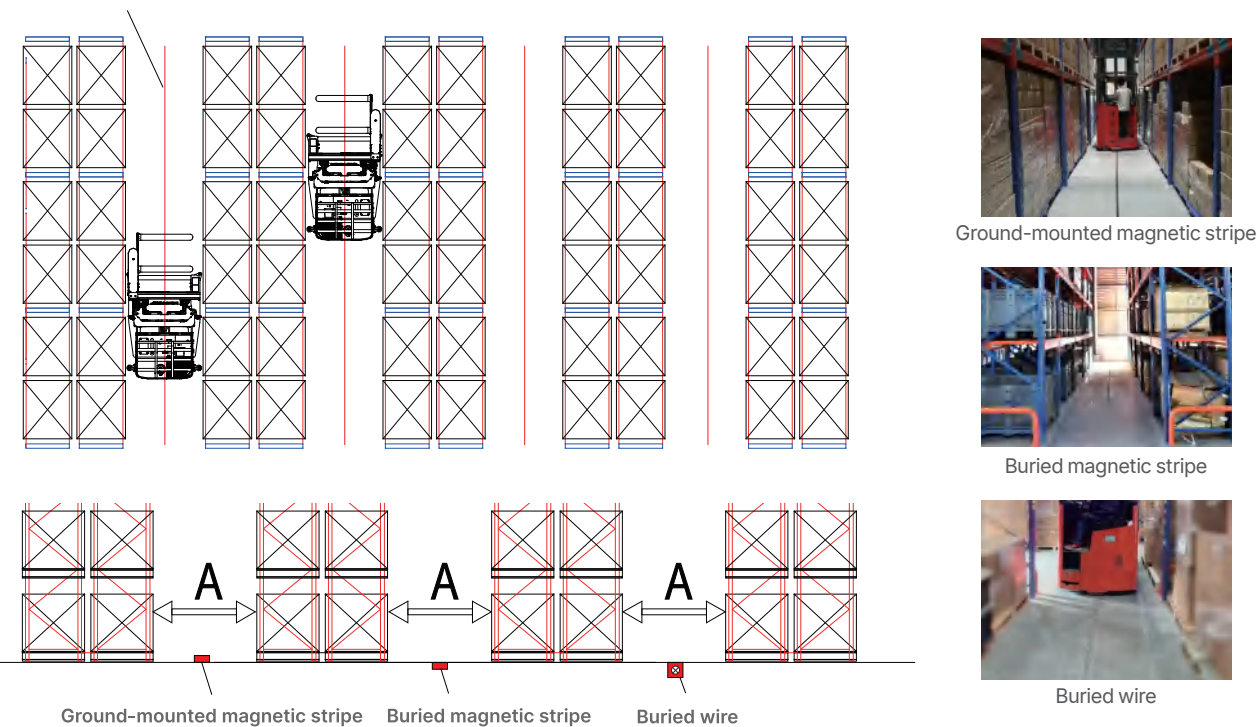
Mechanical guide mode:

The crossbeam is installed at the bottom of the shelf, and the guide rail is installed on the ground in the aisle. The vehicle travels along the rail within the aisle, ensuring efficient and safe movement.

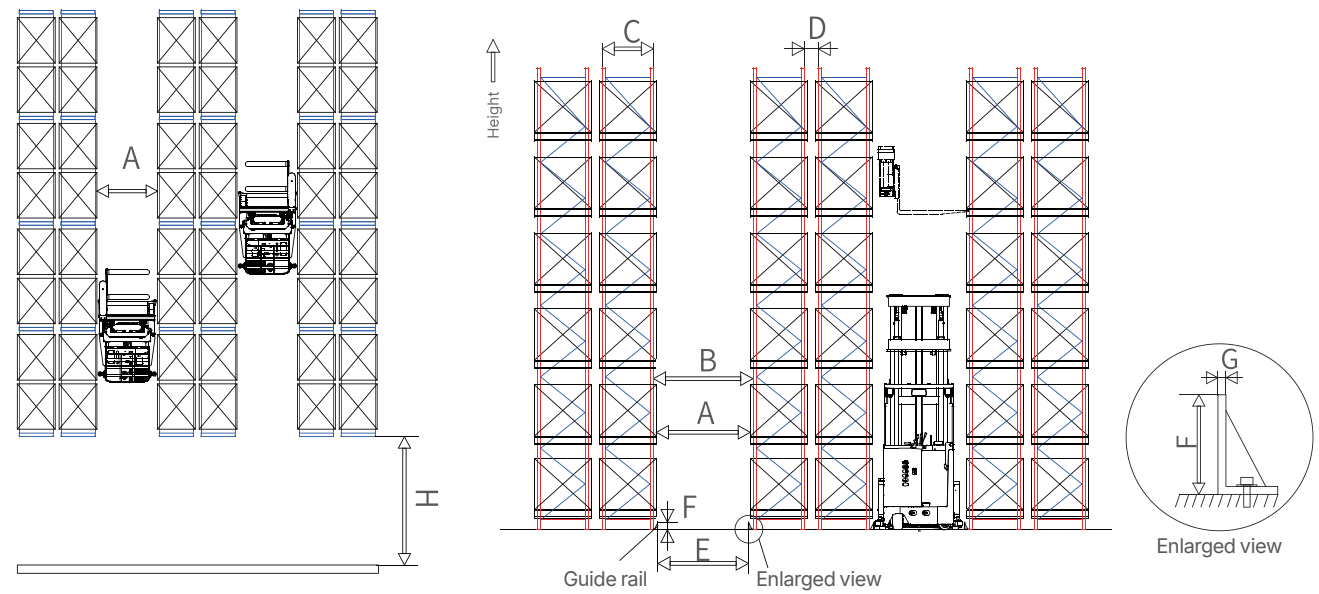


Magnetic navigation mode (optional):

Goods can be placed directly on the floor without floor rails, which saves the bottom crossbeams and reduces warehouse construction costs.



The dimension of rack and aisle



Dimension Sheet

Mode		MC12			MC16			MCA16			MCC16		
Pallet size	mm	1000×1000 1000×1200	1100×1100	1200×1200 1000×1200	1000×1000 1000×1200	1100×1100	1200×1200 1000×1200	1000×1000 1000×1200	1100×1100	1200×1200 1000×1200	1000×1000 1000×1200	1100×1100	1200×1200 1000×1200
Load center	mm	C500	C550	C600	C500	C550	C600	C500	C550	C600	C500	C550	C600
Fork length	mm	1000	1100	1200	1000	1100	1200	1000	1100	1200	1000	1100	1200
A Net width of aisle/ goods to goods distance	mm	1500/1550 ⁽¹⁾	1500/1550 ⁽¹⁾	1600/1650 ⁽¹⁾	1600/1650 ⁽¹⁾			1600/1650 ⁽¹⁾			1650/1700 ⁽¹⁾		
B Beam spacing between the rack	mm	1700/1750 ⁽¹⁾	1700/1750 ⁽¹⁾	1800/1850 ⁽¹⁾	1800/1850 ⁽¹⁾			1800/1850 ⁽¹⁾			1850/1900 ⁽¹⁾		
C Rack depth	mm	800	900	1000	800	900	1000	800	900	1000	800	900	1000
D Rack back-to-back distance	mm	≥300			≥300			≥300			≥300		
H Main aisle width	mm	≥3700		≥3800	≥3800			4300/4800 ⁽¹⁾			4500/5000 ⁽¹⁾		
E Inner distance of the guide rail	mm	1480 ^{±5}			1580 ^{±5}			1580 ^{±5}			1580 ^{±5}		
F Guide rail height	mm	≥100			≥100			≥100			≥100		
G Guide rail thickness	mm	≥8			≥10			≥10			≥10		

Note: (1) The net aisle dimensions of racks in magnetic navigation mode. The table above shows corresponding parameters under standard conditions. For more detailed requirements, please consult our professional sales engineers.