

SINCE 1994

VNA · LONG MATERIAL HANDLING · HEAVY-DUTY · AGV BODY

2022.3 Version

®

MiMA

Min. space Max. performance

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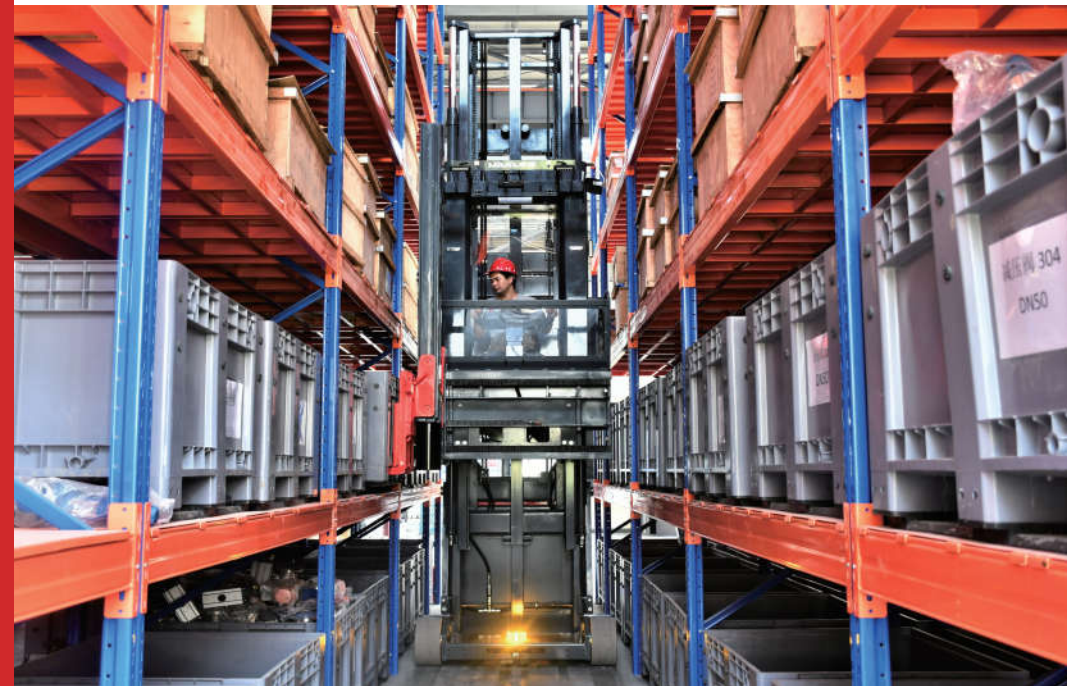


Website

SINCE 1994

VNA · LONG MATERIAL HANDLING · HEAVY-DUTY · AGV BODY

Man-up Turret Truck MCC16

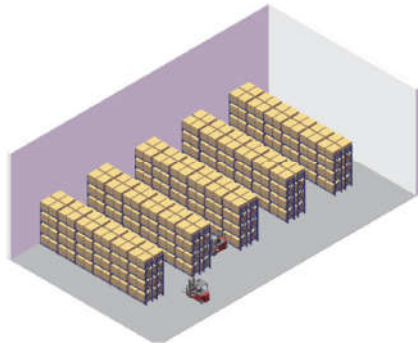


Narrow Aisle Intensive Storage Solution

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Ultra-high Storage Capacity

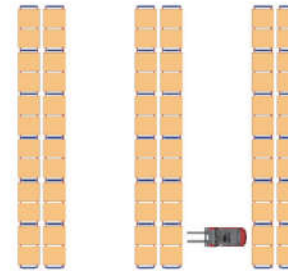


Electric counterbalanced forklift



Rack height: 5M

Extremely Narrow Aisle



Aisle width: 4M

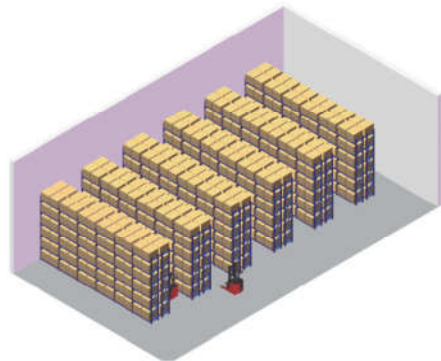
Electric counterbalanced forklift

- few pallet positions

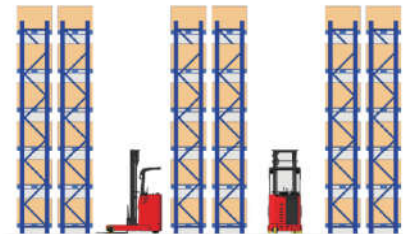
- Large aisle width (Around 4M)

- Low rack height (Around 5M)

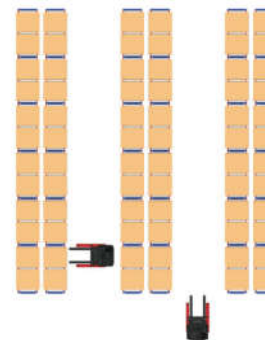
- High cost for single pallet position



Reach truck



Rack height: 7.5M



Aisle width: 3M

Reach truck

- Compared with counterbalanced forklift

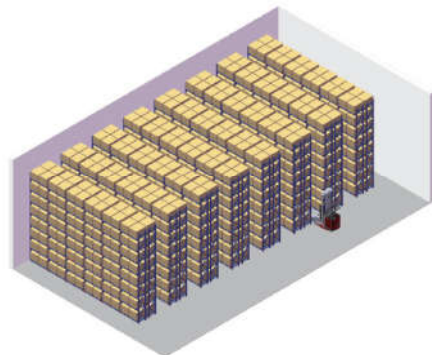
- Pallet positions have increased by 80%

- Rack height has increased by 40% (Around 7.5M)

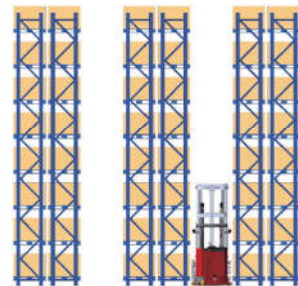
- Aisle width has decreased by 25% (Around 3M)

- Based on same storage area

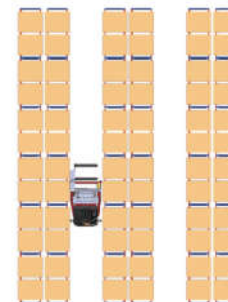
- Cost for single pallet position has decreased by 40%



Man-up turret truck



Rack height \geq 10M, The max 14M



Aisle width: 1.65M

Man-up turret truck

- Compared with counterbalanced forklift

- Pallet positions have increased by 200%

- Rack height has increased by 100% (\geq 10M)

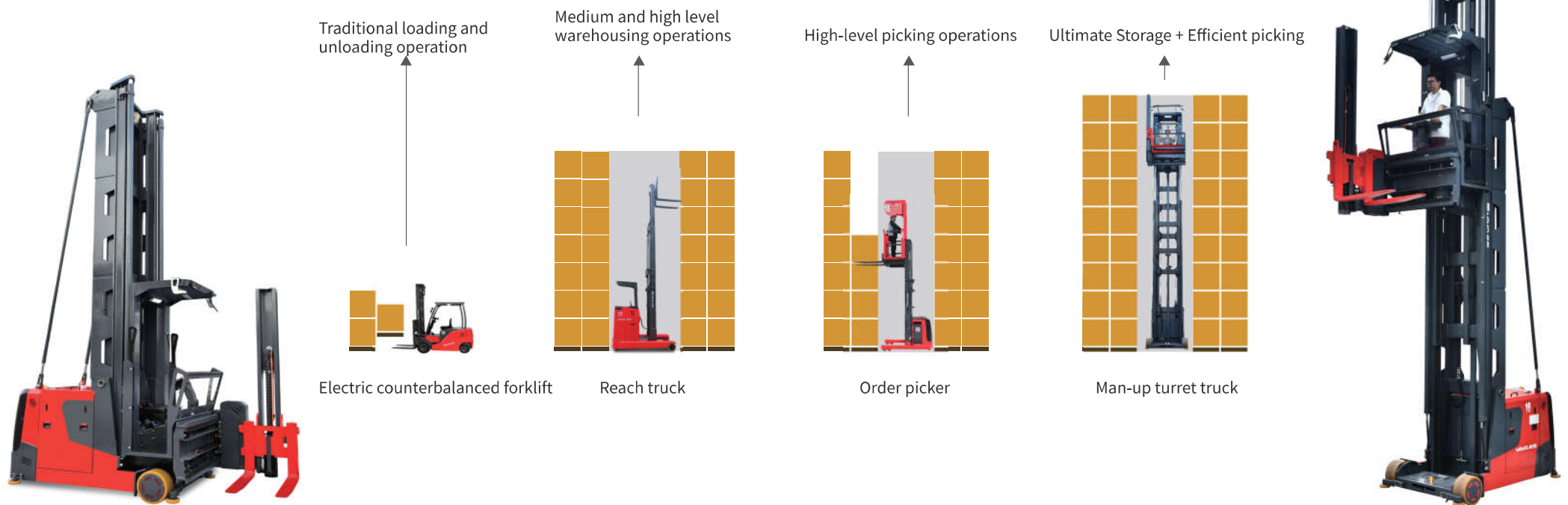
- Aisle width has decreased by 55% (1.65M)

- Based on same storage area

- Cost for single pallet position has decreased by 60%



Ultra-high Storage Capacity Rate



Efficient Picking Operation

MCC16 series Man-up turret truck

The forks can rotate 180° freely. When working in the narrow 1.65-meter aisle, the forklift does not need to turn, and the operation is simple and convenient, which greatly improves the storage efficiency.

The forks can move left and right to handle cargo stably, providing the efficiency and flexibility of the operation.

The vehicle is equipped with side shifter and rotate linkage action function as standard. The fork direction can be quickly adjusted by one key operation.

180°

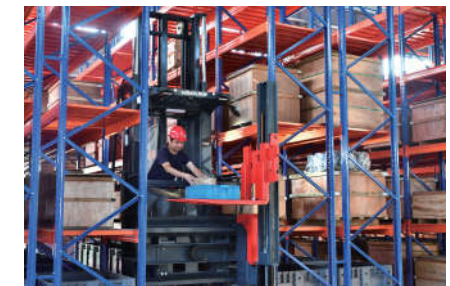
The forks can move left and right



MCC16 series Man-up turret truck

Combining the functions of reach truck and high-level order picker, it can improve the work efficiency, especially the picking up scattered goods.

Besides, Man-up turret truck provides an excellent working vision, which is safer.



High Safety



Driving wheel (rear wheel) and bearing wheel (front wheel), Three sets of wheels are equipped with electromagnetic brake assemblies and multiple sets of brake systems work together to provide a strong braking force for the whole vehicle, ensuring that the braking system is stable and reliable under various working conditions, and fully guarantees the safety of operation
All-wheel electromagnetic braking, with short braking distance

The voltage level of the whole vehicle is 80V, with high voltage, low current and low energy consumption, which can provide longer work life.

The main controller and other components are imported brand products, the operation is stable and safe.

The drive, steering and lifting motors are all AC motors, brushless, maintenance free and more convenient.

- 80V Electrical System
- High Voltage Low Current
- Full AC Motor
- Maintenance Free and More Convenient



Robust Mast Structure

Guaranteed high load capacity



- The outer mast adopts a semi-closed rectangular frame structure, equipped with a diagonal pull rod device, and has an ultra-high strength design;
- The inner mast adopts the design of the central guide rail, which is reprocessed by horizontal mast milling machine after overall welding to ensure high precision;
- The integral cab and the specially designed side shifter carriage ensure the stability and reliability;
- The imported ultra-high strength customized mast channel steel with high strength and high rigidity;
- Complete process tooling ensure super high load capacity

Excellent Ergonomic Design

Standing driving/Seating driving

- Standing driving, easy to pick, great vision
- Seating driving, Narrow aisle driving and stacking storage operation are more comfortable
- The control panel supports fast adjustment to quickly adapt to different driving models



High Configuration • Comfortable Operation



Humanized Control Assembly

Easy operation! No need to move hands frequently. The driver can control the forklift through the integrated control panel, safe and secure!
Practical functions: synchronized side shifting and rotation, pre-selection height, main and auxiliary masts lifting up/down synchronously.



HD Reversing Video Display

Standard configuration: Reversing image function, HD Display
Better reversing vision and safer operation

Laser safety obstacle avoidance function (optional)

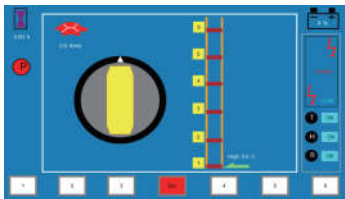
Add laser safety obstacle avoidance function at the front and rear of the forklift;
When detecting the front and rear obstacles or people within the set distance, it will automatically decelerate until it stops, with high safety.



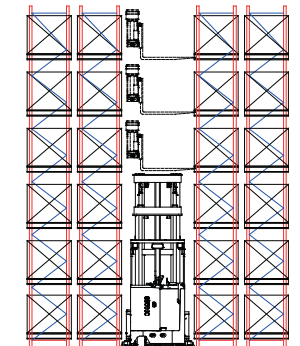
Standard configurations: two-hand induction and foot pedal induction, OPS safety protection/arm guard lift safety protection/one-key pick-and-place/chain anti-loosening warning system/emergency escape system/aisle end deceleration function(option), etc.



Pre-selection Height



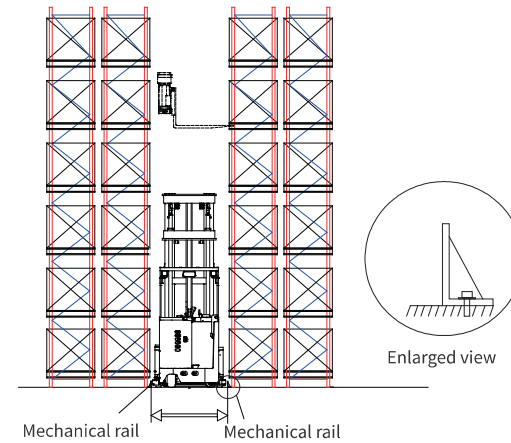
Through the setting of the height sensor and the optimization of the hydraulic and electrical system of the whole vehicle, the fork can be operated to the specified height with one key, which completely liberates the manual operation.



Multiple Driving Modes in the Aisle

Mechanical Guide Rail Mode

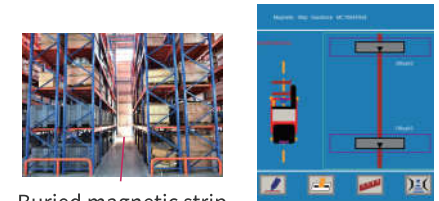
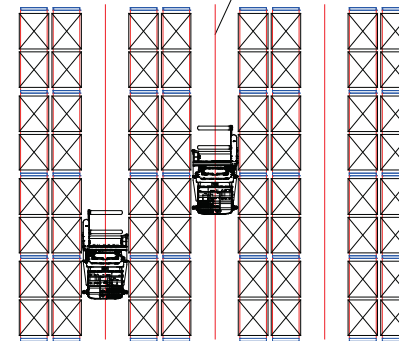
Beams are installed at the bottom of the racks, and guide rails are installed on the ground. The vehicle travels along the rails, driving more efficiently and safely.



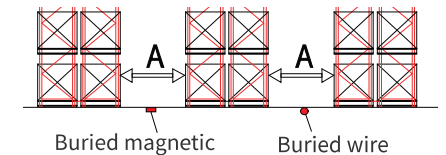
Magnetic Wire Navigation Mode

Save the cost of the bottom beams of the racks, the goods can be placed directly on the ground. No need to install ground guide rails, avoid ground construction, and reduce warehouse construction costs!

Magnetic stripe navigation/Wire navigation



Buried magnetic strip

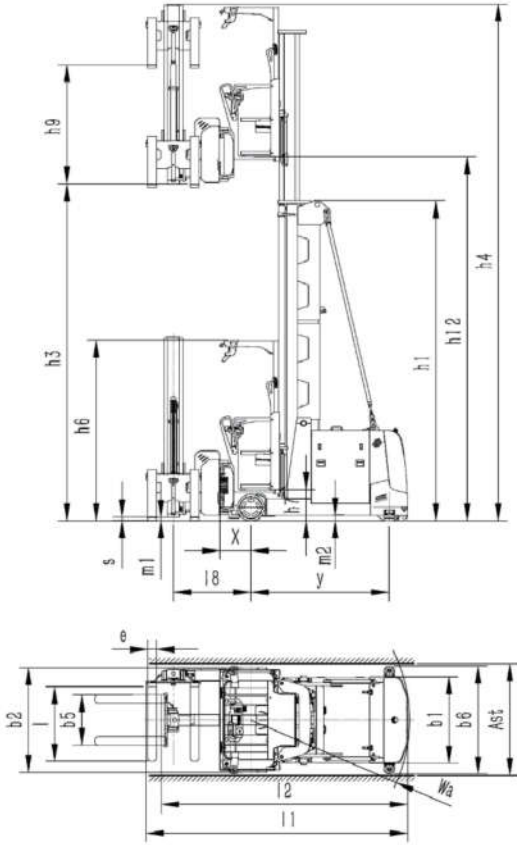


Buried magnetic

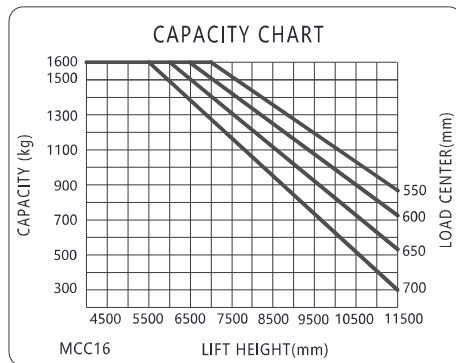
Buried wire

Product Specification

Manufacturer		MIMA
Model		MCC16
Power type		Battery
Operation type		Stand-on/Seated (man-up)
Rated load capacity	Q(kg)	1600
Load centre	C(mm)	600
Load distance	X(mm)	435
Wheelbase	y(mm)	1950
Service weight (incl. battery)	kg	7720
Tyre types		PU
Tyre size, load side	mm	φ380×192
Tyre size, drive side	mm	φ400×160
Number of tyres front/drive		2 / 1X
Wheel tread, load side	b11(mm)	1310
Mast closed height	h1(mm)	3665
Main mast lift height	h3(mm)	4500
Max. mast extended height	h4(mm)	7130
Overhead guard height	h6(mm)	2590
Pedal height	h7(mm)	445
Auxiliary mast lift height	h9(mm)	1700
Pedal height when lifting	h12(mm)	4945
Total lift height	h3+h9(mm)	6200
Max. Picking up height	h12+1600(mm)	6545
Overall length (forks 90 degrees)	l1(mm)	3690
Overall length (forks 0 degree, fork to vertical surface)	l2(mm)	3475
Overall width	b1/ b2(mm)	1244/1502
Fork size	l/e/s(mm)	1200/125/50
Installation level		Class II Type B
Fork outside width	b5(mm)	260~725
Side shift distance	mm	1300
Distance from fork rotation center to front axle center	l8(mm)	1095
Outside distance between guide wheels	b6(mm)	1550
Min. ground clearance of mast	m1(mm)	45
Min. ground clearance of wheelbase center	m2(mm)	80
Turning radius	Wa(mm)	2235
Stacking clear aisle width (1200×1200 pallet)	Ast(mm)	1650
Main aisle width	mm	≥(4100+900)
Driving speed, load/unload	km/h	10/10
Lifting speed, load/unload	mm/s	320/320
Lowering speed, load/unload	mm/s	400/380
Max. Gradeability, load/unload (S2-Smin)	%(tanθ)	5/8
Driving brake type		Regenerative/Electromagnetic
Parking brake type		Electromagnetic brake
Drive motor (S2-60min)	kw	8 AC
Lifting motor (S3-15%)	kw	21 AC
Battery voltage/capacity	V/Ah	80/560
Battery weight	kg	1530
Steering type		EPS
Battery replacement type		Side pull



Load Chart



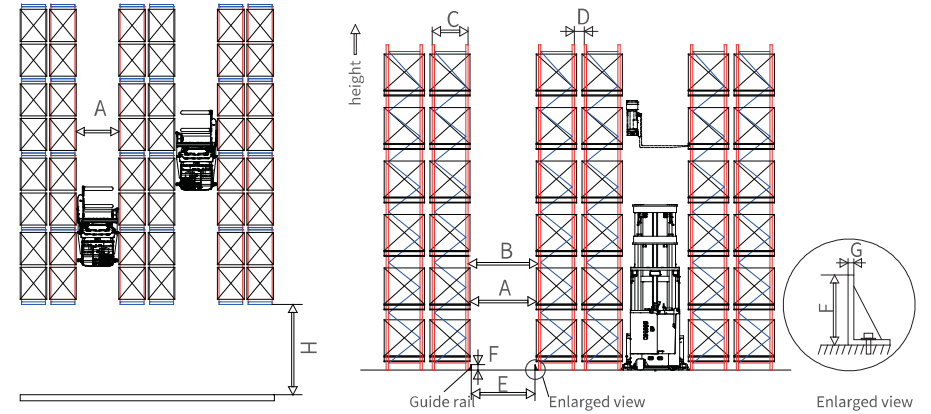
Note: All specifications are standard model. It varies with different configuration without notice.
 1. Safety margin of the main aisle width: Magnetic navigation model need +900mm, Guide rail model need +400mm.
 2. Optional Li-Ion battery: 80V/450Ah

Mast Height Specification

Model	MCC	16-45	16-50	16-55	16-60	16-65	16-70	16-75	16-80	16-85	16-90	16-95
Main mast lifting height	h3(mm)	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500
Total lifting height	h3+h9(mm)	6200	6700	7200	7700	8200	8700	9200	9700	10200	10700	11200
Max. mast extended height	h4(mm)	7130	7630	8130	8630	9130	9630	10130	10630	11130	11630	12130
Mast closed height	h1(mm)	3665	3915	4165	4415	4665	4915	5165	5415	5665	5915	6165
Max. Picking up height	h12+1600(mm)	6545	7045	7545	8045	8545	9045	9545	10045	10545	11045	11545

Note: The above lifting height includes 1700mm auxiliary lifting height, so the corresponding main lifting height should be the total lift height minus 1700mm.

Rack and Aisle Dimensions



Rack Diagram



Mounted guide rail	MCC16				
Pallet dimension	1000×1000 1000×1200	1100×1100	1200×1200 1000×1200		
Load center	C500	C550	C600		
Fork length	1000	1070	1200		
Clear aisle width A	1650				
Rack to rack distance B	1850	1950	1750	1850	1750
Rack depth C	800	800	1000	1000	1100
Rack back to back space D	≥300	≥400	≥200	≥300	≥200
Main aisle width H	4500/5000				
Inner distance between rails E	1580±5				
Guide rail height F	100-140				
Guide rail thickness G	≥10				