XNA121

1.2Ton Dual-Sided Fork Autonomous Narrow Aisle Stacker

EP | MOVER
Let's grow together

EP Innovation
Exclusive Patent
Global Debut

8500
Maximum Lifting Height (mm)

- The innovative high-load dual-side fork enables loading/unloading on both shelves without turn around.
- Stacker width≈aisle width, with the narrowest aisle 1740mm, saving approximately 50% of storage space.
- Equipped with LiDAR and visual camera positioning technology to achieve high-precision positioning.
- DAS deliveries precise and efficient data support for warehouse decision-making.

CE

Manufacturer		EP
Model designation		XNA121
Drive		Electric
Load capacity	kg	1200
Service weight	kg	6500
Load centre distance	mm	600
Dimensions (l1/b1/h1)	mm	3190/1540/4465
Fork dimensions (s/e/l)	mm	40/100/1180
Lifting height	mm	8500
Lateral reach distance	mm	1300
Travel speed, laden/unladen	m/s	1/1
turning radius	mm	1989
Battery voltage/nominal capacity	V/Ah	48/560
Safety protection		Lidar| Emergency stop button
Positioning		Wi-Fi/5G
Parking accuracy	mm	±10
Navigation accuracy	mm	±10

Intelligent Warehousing: Maximizing Efficiency in Every Aisle

**Innovative Dual-Sided Picking.
No Steering.
Perfect Aisle Fit.**

1740mm
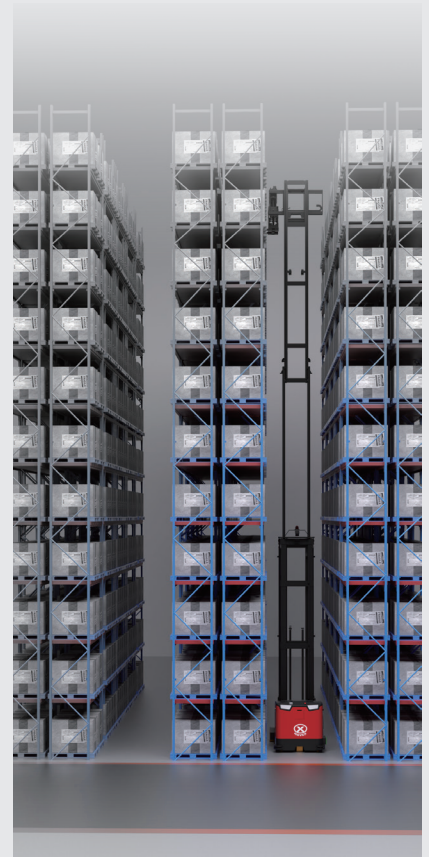
Narrowest Aisle
Only 1740mm
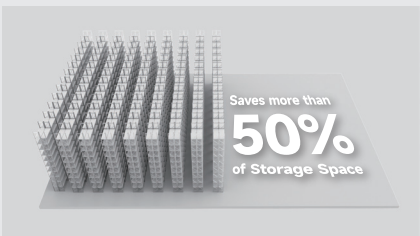
50%

Saves more than
50% of Storage Space

Dual-Sided Forklift Picking,
Picking from Both Sides, Higher Efficiency
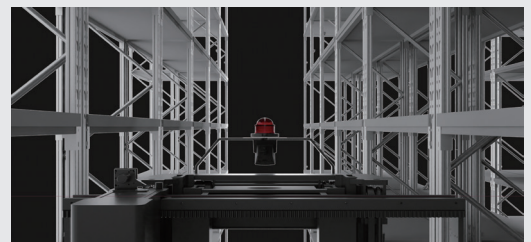

≤1cm

Straight-Line Travel
Lateral Deviation

Saves more than
50%
of Storage Space

≤1cm

Target Point Docking
Accuracy

Smooth Forward and Reverse Operation
No Turning and Save More Space

Stability of Positioning is Ensured by
Multi-Sensor Fusion Navigation Using
SLAM LiDAR + Vision Camera Fusion

**High-Precision Positioning and Navigation
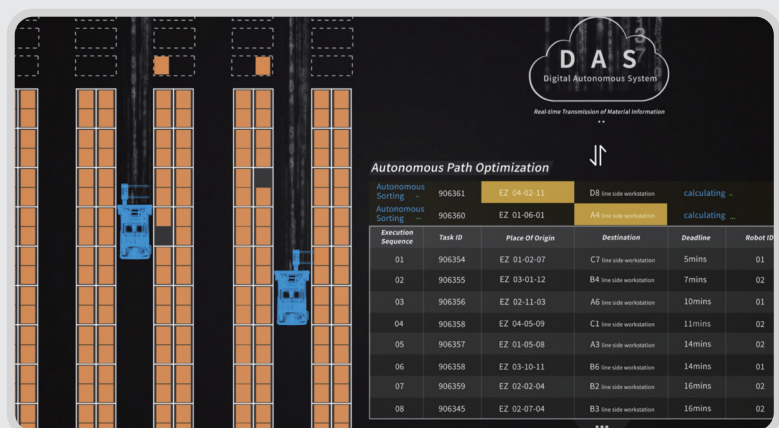Technology for Safe and Efficient Picking in Narrow Aisles**

Equipped with SLAM LiDAR + Vision Camera Fusion Positioning Technology, and using a learning-based adaptive lateral control algorithm, high-precision positioning is achieved, ensuring safe and efficient high-altitude operations in narrow aisles.

▼ Digital Warehousing: Movement Creates Data for Smarter Material Management

By leveraging robots to precisely collect data across the entire goods movement chain and synchronizing it in real-time to Digatal Autonomous System(DAS), comprehensive digitalization and transparent management of warehouse information are achieved.
Real-time visibility of warehouse status provides accurate and efficient data support for warehousing decisions.


▼ DAS Improves Warehouse Management Efficiency by Real-Time Online Monitoring and Updating of Material Flow.

Core Performance Parameters:

8500
Maximum Lifting Height（mm）

1200
Maximum Load Capacity（Kg）

1740
Aisle Width（mm）

DAS
Digital Autonomous System

Real-time Transmission of Material Information

Autonomous Path Optimization

Autonomous Sorting	906361	EZ 04-02-11	D8 line side workstation	calculating
Autonomous Sorting	906360	EZ 01-06-01	A4 line side workstation	calculating

| Execution Sequence	Task ID	Place Of Origin	Destination	Deadline	Robot ID
01	906354	EZ 01-02-07	C7 line side workstation	5mins	01
02	906355	EZ 03-01-12	B4 line side workstation	7mins	02
03	906356	EZ 02-11-03	A6 line side workstation	10mins	01
04	906358	EZ 04-05-09	C1 line side workstation	11mins	02
05	906357	EZ 01-05-08	A3 line side workstation	14mins	02
06	906358	EZ 03-10-11	B6 line side workstation	14mins	01
07	906359	EZ 02-02-04	B2 line side workstation	16mins	02
08	906345	EZ 02-07-04	B3 line side workstation	16mins	02

DAS, based on multi-dimensional data such as goods timeliness, transportation distance, and robot position, uses intelligent algorithms to generate optimal handling routes in real-time, planning the best storage areas, optimal storage locations, and the most efficient logistics time to align with production rhythms for first-in-first-out and rapid material supply, significantly improving warehousing efficiency and contributing to increased production efficiency.

Basic parameters	1.1	Manufacturer		EP
	1.2	Model designation		XNA121
	1.3	Drive		Electric
	1.4	Operator type		Pedestrian
	1.5	Load capacity	kg	1200
	1.6	Service weight	kg	6500
	1.7	Navigation	-	3D Slam+QR Code
	1.8	Communication	-	Wi-Fi/5G
	1.9	Positioning accuracy	mm	±10
Battery parameters	2.1	Battery voltage/nominal capacity	V/Ah	48/560
	2.2	Battery type	-	Li-ion battery
	2.3	Battery weight	kg	250
	2.4	Usage time	h	8-10
Size	3.1	Dimensions (l1/b1/h1)	mm	3190/1540/4465
	3.2	Load centre distance	mm	600
	3.3	Load length	mm	213
	3.4	Wheelbases	mm	1665
	3.5	Fork vertical length	mm	3200
	3.6	Fork dimensions (s/e/l)	mm	40/100/1180
	3.7	Outer width of forks	mm	685
	3.8	Height with forks lowered	mm	70
	3.9	Lifting height	mm	8500
	3.10	Lateral reach distance	m/s	1300
Other parameters	4.1	Travel speed, laden/unladen	%	1/1
	4.2	Max. gradeability, laden/unladen	mm	-
	4.3	cross-ditch ability	mm	-
	4.4	turning radius	mm	1989
Channel requirements	5.1	Straight forward/backward (with standard shelves) width	mm	1740
	5.2	Right-angle turn (with standard shelves) width	mm	2960
	5.3	Width of unilateral pick-up and unloading		1740
Safety	6.1	Emergency stop button		Front+two sides
	6.2	Voice and light		Voice/light
	6.3	Front protection		laser
	6.4	Rear protection		Forklift laser +safety laser
	6.5	Side protection		laser
	6.6	Physical bumper		Front bottom + side bottom
	6.7	Pallet in-place detection switch		Rear fork root

If there are improvements of technical parameters or configurations, no further notice will be given.
The diagram shown may contain non-standard configurations.

Load center distance position (mm)
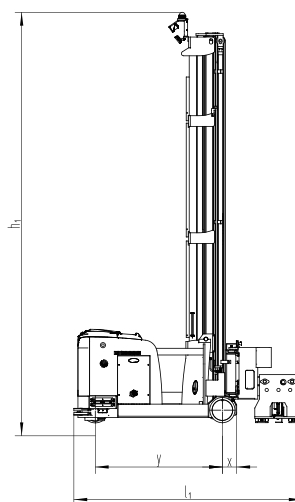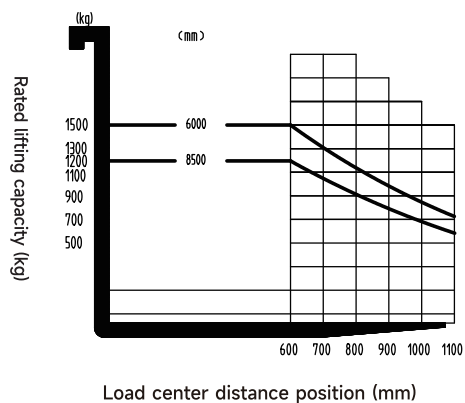
Top view
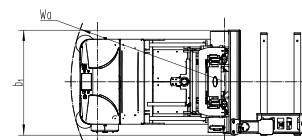
Side view

Option List	7.1	Battery	●48V/560Ah
	7.2	Charger	●48V/200A external charger
	7.3	Automatic charging station	-
	7.4	Warning light	●Turn signal ●Area warning light
	7.5	Front protection	●Dual laser
	7.6	Rear protection	●Fork Tip Anti-Collision●Laser at the base of the fork
	7.7	Interaction method	●screen ○buttons

Notice： ●Standard　○Optional