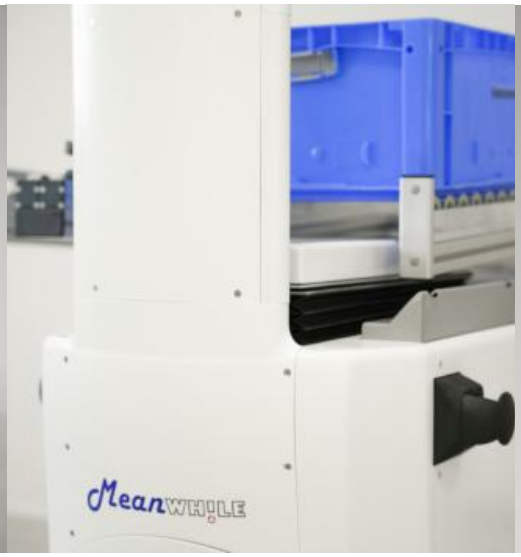
XuP-Box

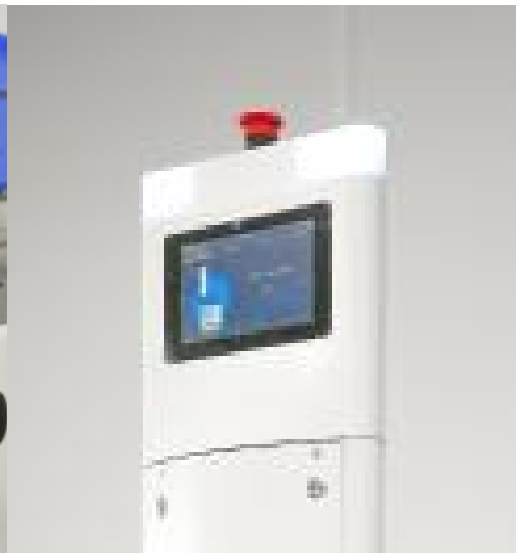
XuP-Box has the task of delivering boxes between several storage areas and/or production lines. The autonomous mobile robot is equipped with a lifting platform. It automatically loads/unloads onto passive fork racks.

50 kg
Payload

700/900 mm
Transfer height

1.35 m/s
Max speed





Lifting platform

Its lifting platform, equipped with a crate centering device, allows it to dock autonomously with passive fork racks.

Agile

Its small footprint allows for optimal manoeuvrability of the XuP-Box.

Safe

Designed according to a risk analysis following the Machinery Directive 2006/42/EC and the standard ISO 3691-4.

Options

- Acuity Localization
- Visual Warning presence system
- Dual zone conveyor
- RFID reader
- Transfer height adjustable

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A turnkey solution

Automatic Delivery

Order → Navigation → Loading → Transport → Unloading → Navigation → New mission

Solution ecosystem

Server cabinet

Mw²
OmniReport | Database
Virtual Machine

Fleet Manager

IT System

Customer PC

Mobile planner

Mw² Webclient

Customer PC

Réseau client

Factory

Mobile robots

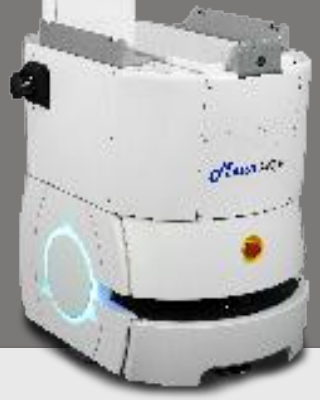
Machine
Omnibox

Elevator
Omnibox

Door
Omnibox

Supervision tablet

Technical specifications



General

Max. speed	1.35m/s (4,85km/h)
Dimension (LxWxh)	720 x 637 x 1631 mm (720mm diameter)
Mechanical weight	90 kg

Application

Technology	The lifting platform is equipped with an automatic box centering device
Max. transfer height	900 mm
Min. transfer height	700 mm
Up and down system speed	1,5m/minute
Payload	50 kg
Size of the embedded containing	600x400mm, 2(300x400mm)

Mobility

Navigation	Autonomous routing by localizing with safety scanning laser based on environment mapping.
Environmental map making method	Scan by walking the mobile robot through the environment.
Move	Avoidance and bypassing of obstacles by calculating a new trajectory.

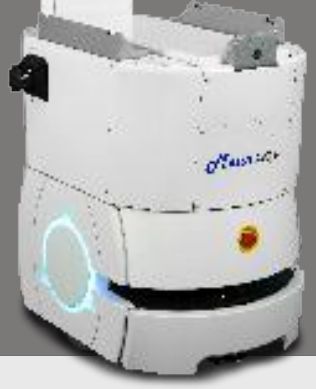
Human-Machine interface

Touchscreen	7'' TFT LCD screen, 800x480 pixels
Manual Mode	Two push buttons to move the robot manually if necessary

Environnement

Operating temperature range	5 - 40° C
IP Class	IP20
Application environment	Indoor use only, limited dust and oil suspension
Climb grade	Max : 8%
Floor requirement	Linoleum, epoxy or concrete (no water, no oil, no dust)

Technical specifications



Safety

Safety scanning laser	At front, Class 1 PLd safety per ISO 13841-1 15m maximum range 240° field of view
Low front laser	1 at front, Class 1 4m maximum range 126° field of view
Side lasers	1 on each side of the platform, Class 1 4m maximum range 270° field of view
Emergency Stop	2 on each side of the robot
Rear Sonar	2 at rear, 2m range
Front bumper	1 at front of platform, 2 pairs of sensors
Warning lights	Light discs on each side Upper LED strips
Speaker and buzzer	3.5'', 80W max

Battery

Run time	± 10 hours
Recharge time	± 4 hours
Voltage	22-30 VDC LiFePO4
Capacity	72 Ah nominal capacity
Battery life time	2 000 recharge cycles
Charging method	Automatic, manual

Communication

WI-FI	IEEE 802.11 a/b/g
Bluetooth	Bluetooth 2.+ERD

Declaration

EC Declaration of conformity	CE Marking