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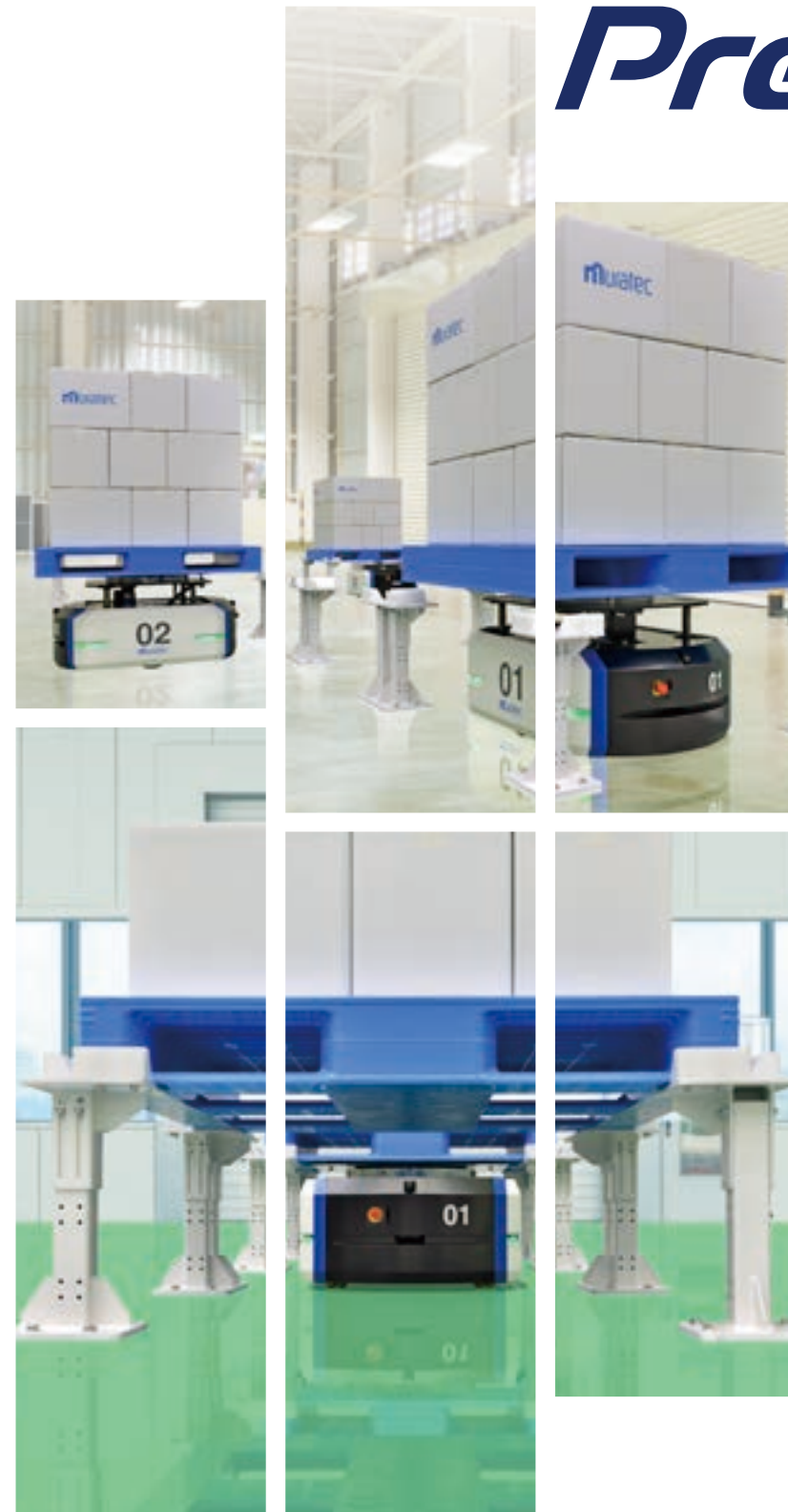
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Premex XIO

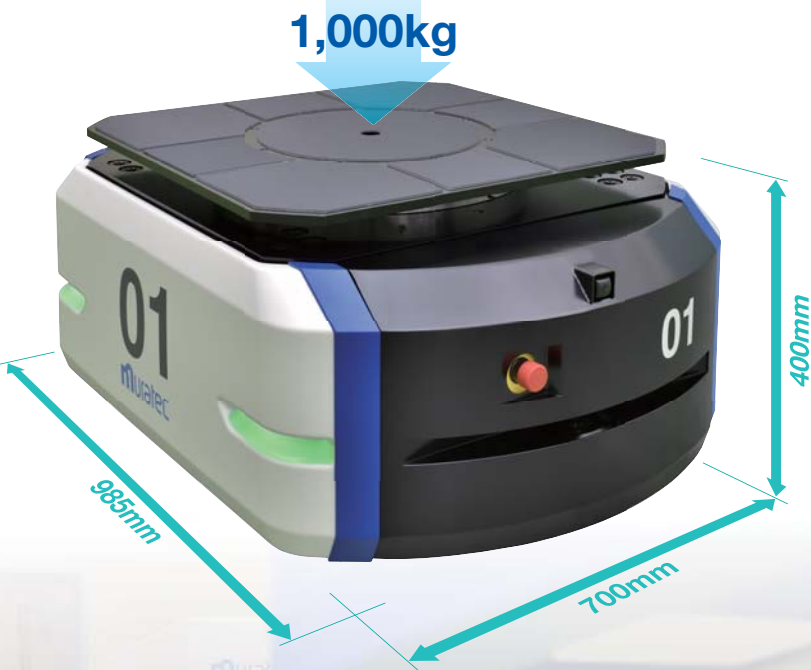
Next Generation Smart AGV

Premex XIO

A smart AGV that can drastically improve productivity

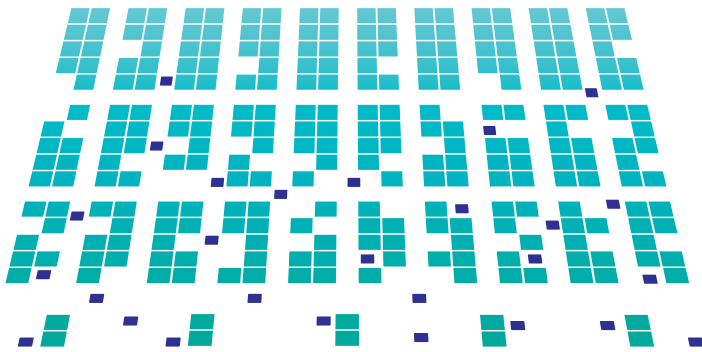
The compact AGV, which runs at a maximum speed of 120 m / min, is smaller than a pallet and can carry a maximum load of 1000kg.

Turntable function allows AGV to load pallets without considering pallet directions. Flexible to adapt to a variety of layouts.



Multi-unit control

Over 50 AGV can be simultaneously controlled with a single controller. Improves overall work efficiency and productivity by automatically calculating optimal transport routes.



Safety measures

The main unit is equipped with a high precision safety laser scanner. The scanner monitors the entire area in the travel direction (180 ° ahead), and automatically decelerates and stops if any obstacles are detected. Works with the operator in the work area.



Main Specifications

Navigation	Matrix code (2D) navigation
Communication	Wireless LAN
Wheel configuration	2 drive wheels and 4 follower wheels
Travel mode	Forward travel, Backward travel, Spin turn
Hoisting stroke	Max. 150 mm (0.5ft.)
Travel speed	Max. 120 m/min (394ft./min)
Minimum turning radius	Min. 493 mm (1.6ft.)
Load size	(L) 1,100 - 1,200 mm × (W) 1,100 - 1,200 mm × (H) Max. 1,500 mm (3.6 to 3.9 ft. x 3.6 to 3.9 ft. x Max.4.9 ft.)
Load weight	Max. 1,000 kg (2,205 lb.)
Vehicle size	(L) 985 mm × (W) 700 mm × (H) 400 mm (3.2 ft. x 2.3 ft. x 1.3 ft.) *Excluding a bumper (option).
Vehicle weight	500 kg (1,102 lb.)
Safety detection function	Safety laser scanner x 1set
Charging method	Quick automatic charging
Battery	Lithium ion battery

Premex XIO

Realize flexible and expandable production plants

The Premex XIO has direct access to the production equipment and is flexible enough to accommodate layout changes and site expansion.



Transport between processes and within processes

The supply to production equipment and the transfer between processes can be automated without a conveyor.



Effective use of space

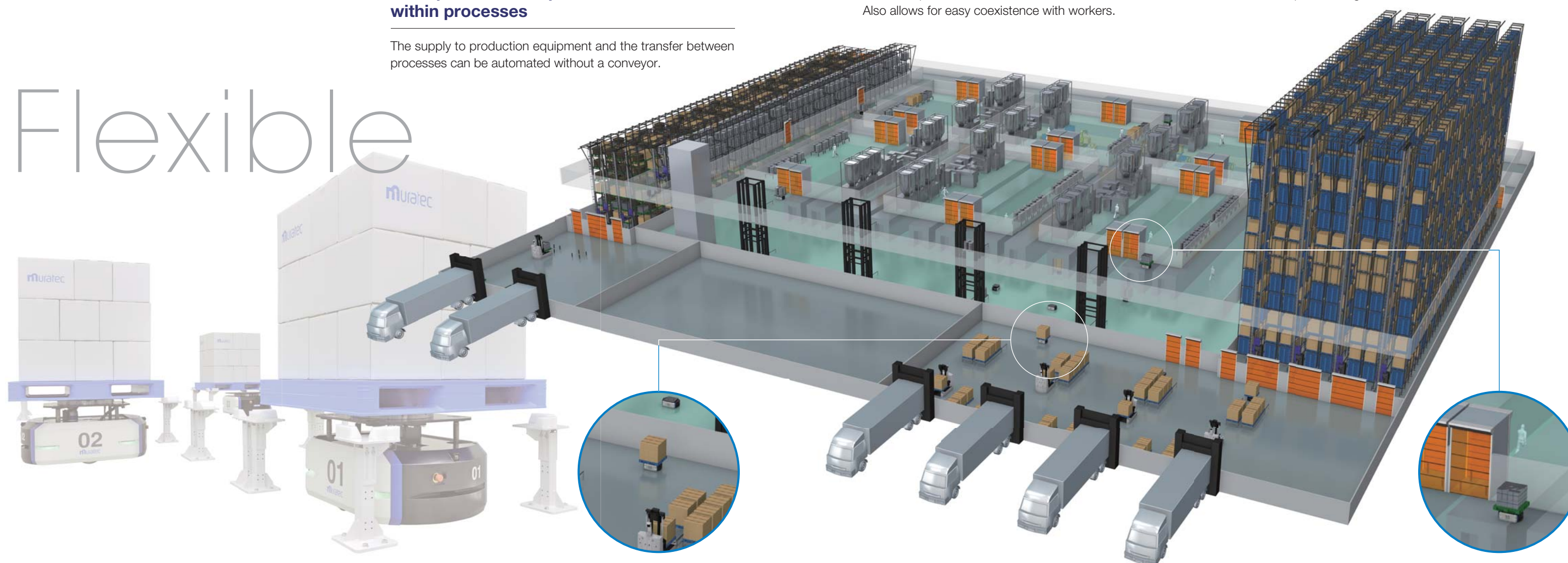
The smaller than a pallet footprint allows for travel in even confined spaces. Also allows for easy coexistence with workers.



Work area is not limited

Capable of sending additional vehicles to separate areas in multilevel spaces using elevators.

Flexible



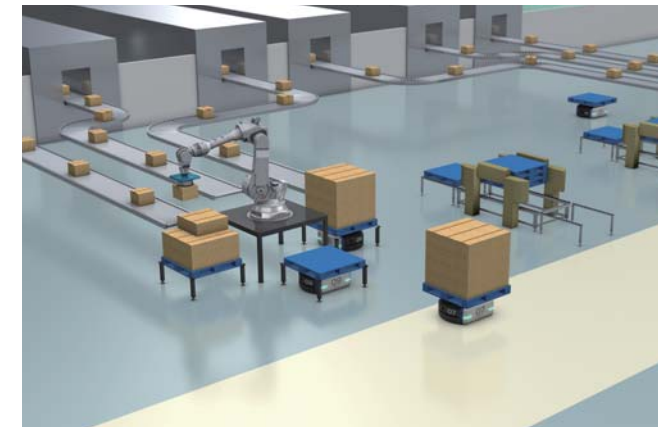
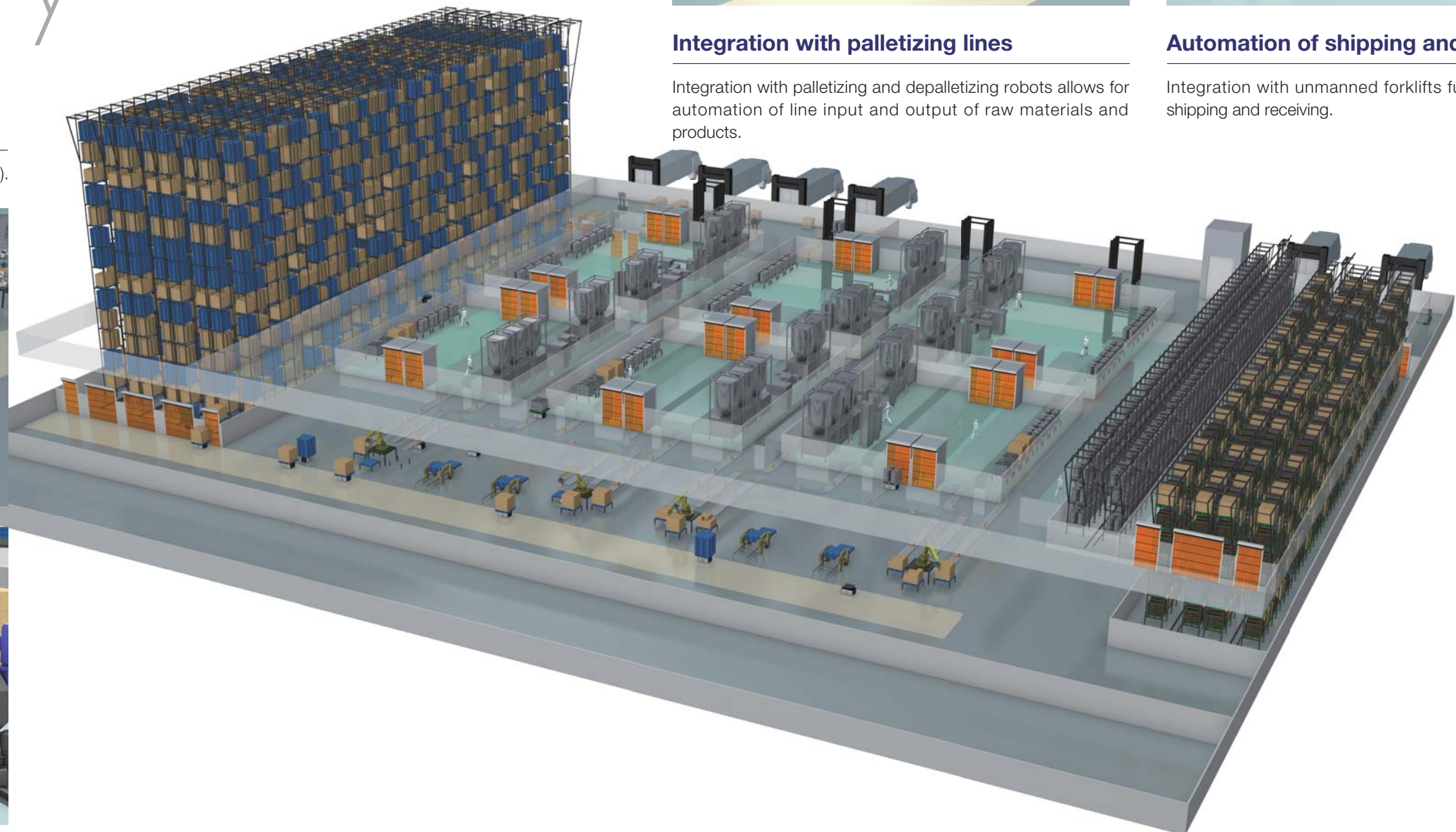


Realize the receiving and shipping automation with less fixed facilities

Simplify

Integration with AS/RS

Eliminates the need for conveyors and rail guided vehicles (RGVs).



Integration with palletizing lines

Integration with palletizing and depalletizing robots allows for automation of line input and output of raw materials and products.



Automation of shipping and receiving

Integration with unmanned forklifts furthers automation of shipping and receiving.



AGV warehouses

AGV warehouses are simple systems for storage and transport utilizing AGV with high density floor storage shelves.

Systems combining the distribution knowhow and the latest AGV technologies can contribute to greatly improved picking efficiency.



SHELF × Smart AGV

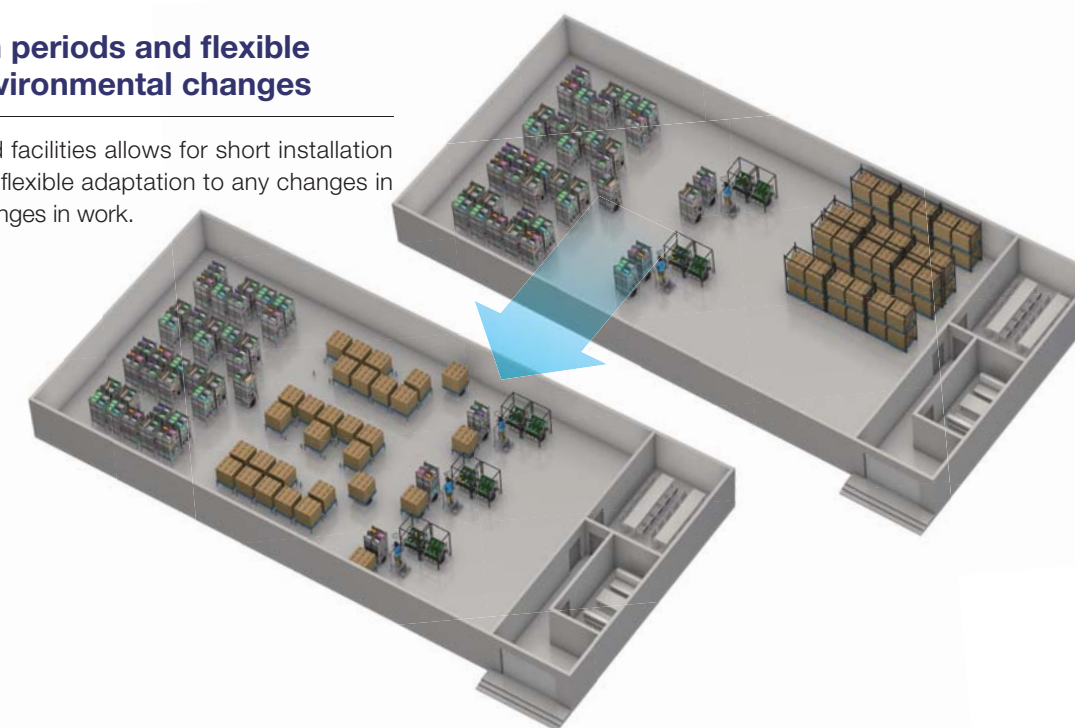
G2P (Goods To Person) work efficiency improvement

AGV transport loads to work stations via optimized travel paths and sequences. Achieves significantly improved work efficiency compared to conventional human picking methods.



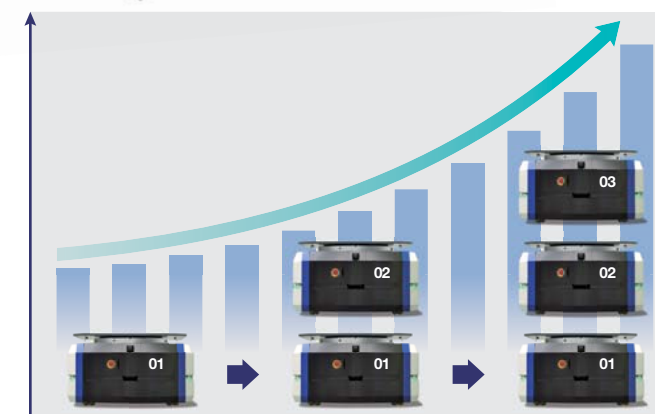
Short installation periods and flexible adaptation to environmental changes

The low amount of fixed facilities allows for short installation periods. Also allows for flexible adaptation to any changes in layout resulting from changes in work.



Start with minimal equipment investment

Expanding the number of vehicles to accommodate business expansion is simple.





Cooperation between AS / RS and smart AGV

Muratec original solution (patent pending)

A new proposal for AGV warehouses to store more SKU in limited space.



Store of large volumes of SKU in smaller spaces

Shelves are densely stored in AS/RS. Compared to existing floor storage types, this type allows for storage of shelves with over 5 times the floor area ratio.



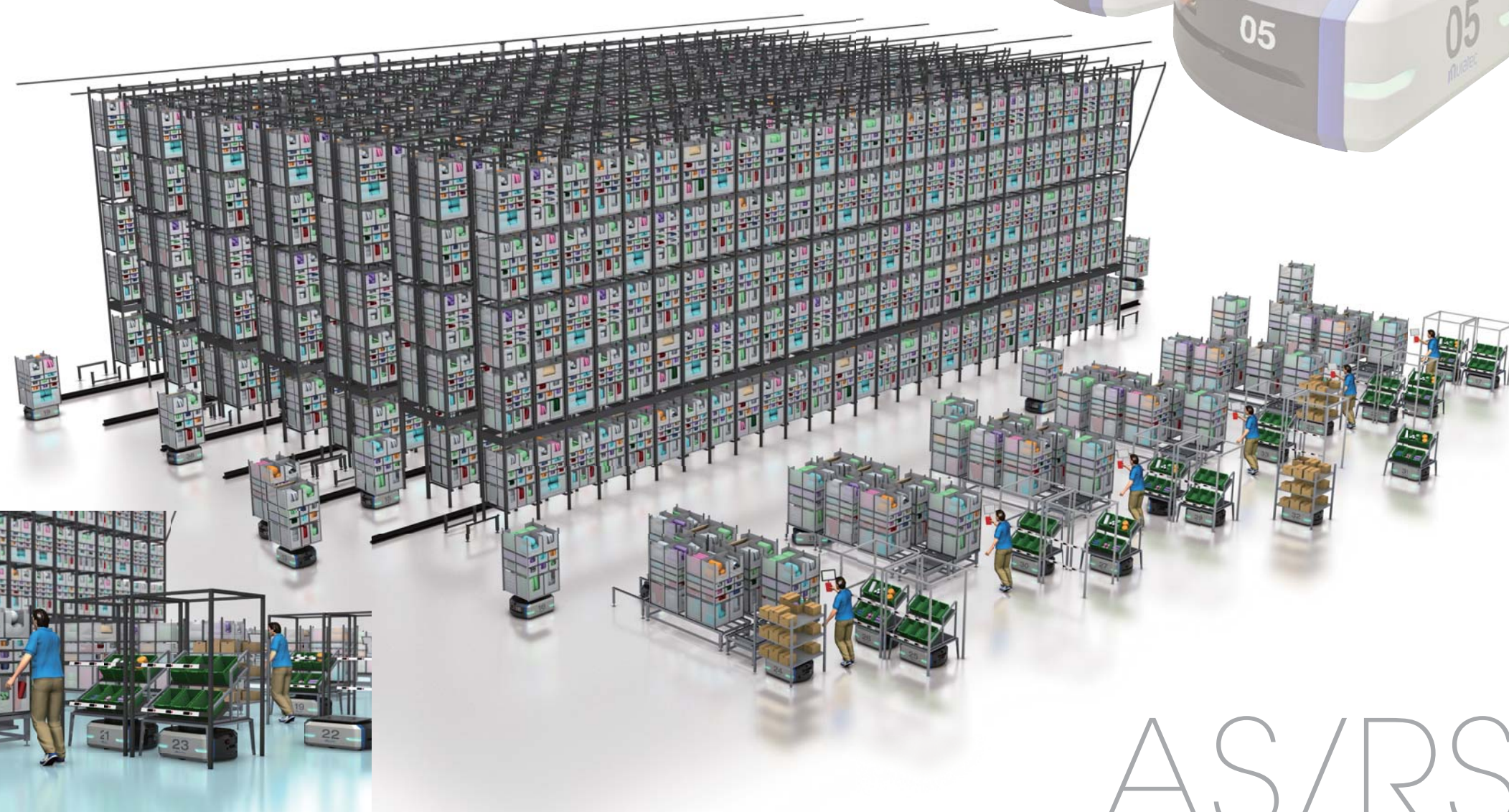
High capacity loading and unloading through combination of high speed cranes and AGV

The Premex XIO directly accesses racks in AS/RS. Integration of high performance cranes and multiple AGV allows for high loading and unloading capacity.



G2P (Goods To Person)

Due to high density high volume storage of the shelves, each shelf can be reduced in height. The burden on the workers is reduced.



AS/RS
X Smart AGV