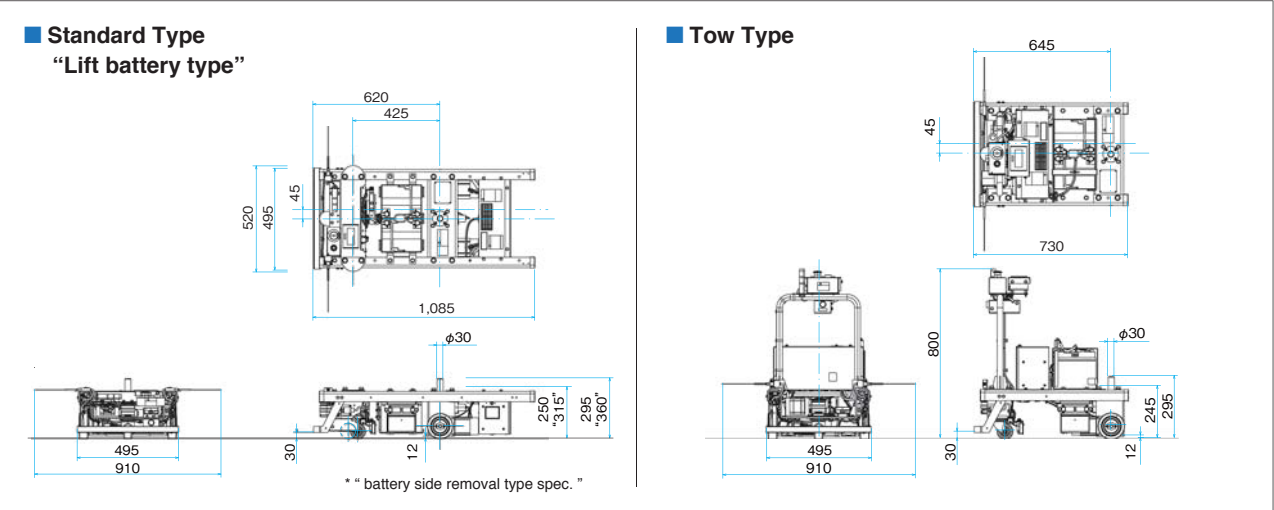


Specifications

Item		Unit	Specification		
Type			Standard type		Tow type
Travel direction		—	Forward	Forward/reverse (option)	Forward
Battery capacity (5 hrs)		V/Ah	32 (option)		
Key Cart dimensions	Overall length	mm	1,085	1,110	730
	Overall width	mm	495		
	Overall height	mm	250 (standard) / 315 (battery side removal spec.)		800
Cart weight		kg	75 (inc. batteries)		
Wheel base		mm	400 (when moving forward) / 450 (when reversing)		500
Min. guide tape radius		mm	R600 or C500		
Max. load capacity (Typical) *	When loaded	kg	200 (when traveling at 30 m/min. or less) / 100		—
	1-point towing	kg	500		—
	3-point towing	kg	50		—
Max. speed*		m/min.	50		
Wheel size/ material	Drive wheels	mm	Φ125/urethane		
	Casters	mm	Φ75/urethane		
Min. above ground height		mm	12 (drive unit)		
Road surface level difference*		mm	5 (when traveling at 15 m/min.)		
Road surface undulations*		mm	10 (within cart body plane of projection) (when traveling at 15 m/min.)		
Floor construction		—	Concrete construction, bar arrangement depth: 70 mm or more		
Road surface finishing		—	Assumed coefficient of friction at design stage: 0.6		
Gradient (3 min. rating)		%	3 (with 200 kg load) / 1 (when towing 500 kg)		
Steering system		—	2-wheel differential speed steering		
Ambient temperature range		°C	0 to 40		
Ambient humidity range		%	20 to 100% RH (no condensation)		
Operating environment conditions		—	Standard indoor environment		
			• There should be no dust, oil mist, or corrosive gas. • There should be no exposure to rain. • The road surface should not be wet or have puddles. • Optical sensors should not be exposed to direct sunlight. • There should be no exposure to thermal shock.		

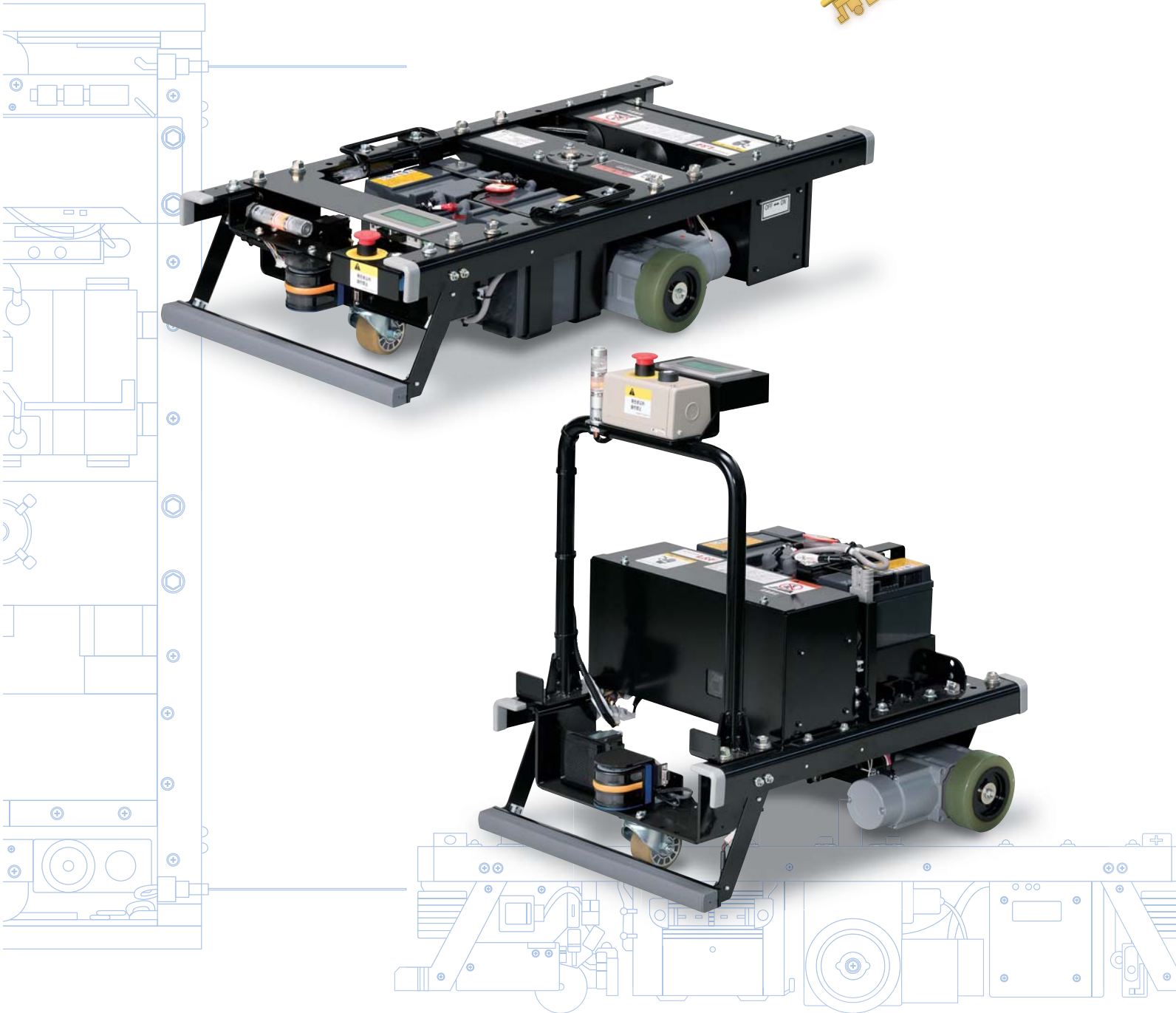
The data in the table are reference values
* The maximum transportable load may be significantly restricted depending on the dolly construction
* The maximum speed is determined based on actual drive unit performance
* These are the allowable ranges the Key Cart can operate, and does not guarantee durability under these conditions



* * battery side removal type spec. "

Simple AGV KEY CART

Kaizen Easy Yourself



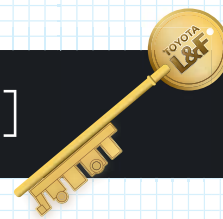
TOYOTA INDUSTRIES CORPORATION
TOYOTA Material Handling Company

※The above AGV photos include options.

Specifications can be changed without notice.

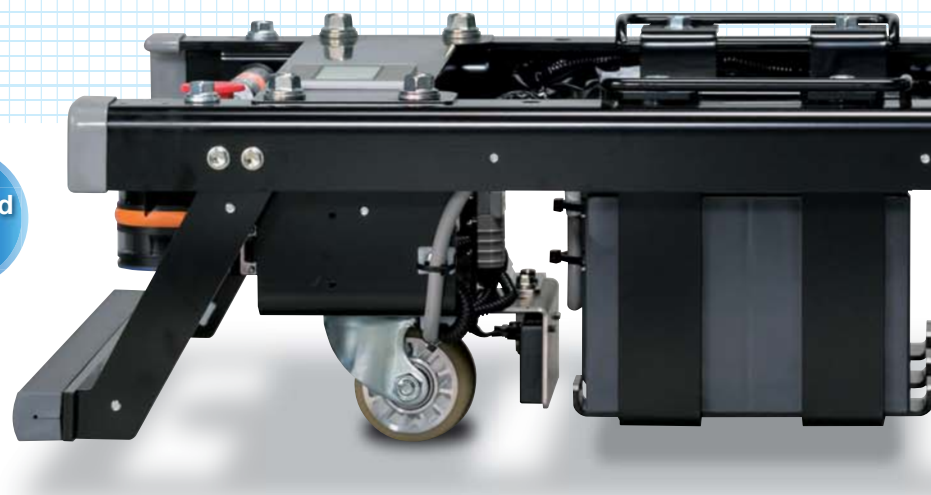
※The above AGV photos include options.

KEY CART ▶ [Kaizen Easy Yourself]



Designed and provided as an entry model AGV
to your production sites
Saving cost by selecting only necessary functions

Standard Type



※The above AGV photos include options.

Tow Type



※The above AGV photos include options.

▶ Simple mechanism & inexpensive !!

- Standard safety function
- Easy customize

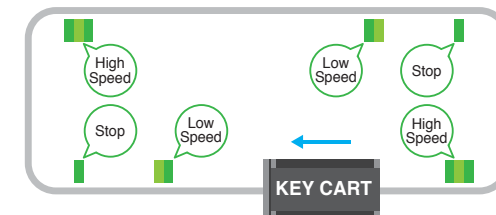


▶ Choose between 2 models to fit the application !!

- **Standard type** : Direct loading or under frame towing
: Multi-purpose / multi-mode application
- **Tow type** : Towing only and one direction only
: Narrow & limited space application

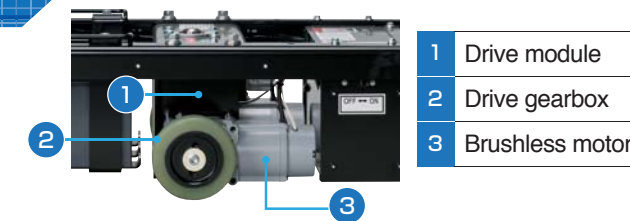
▶ Simple to layout & easy route changes!!

- Simple layout & easy route changes by magnetic guide tape
- Marker pattern operation control



▶ Easy maintenance!!

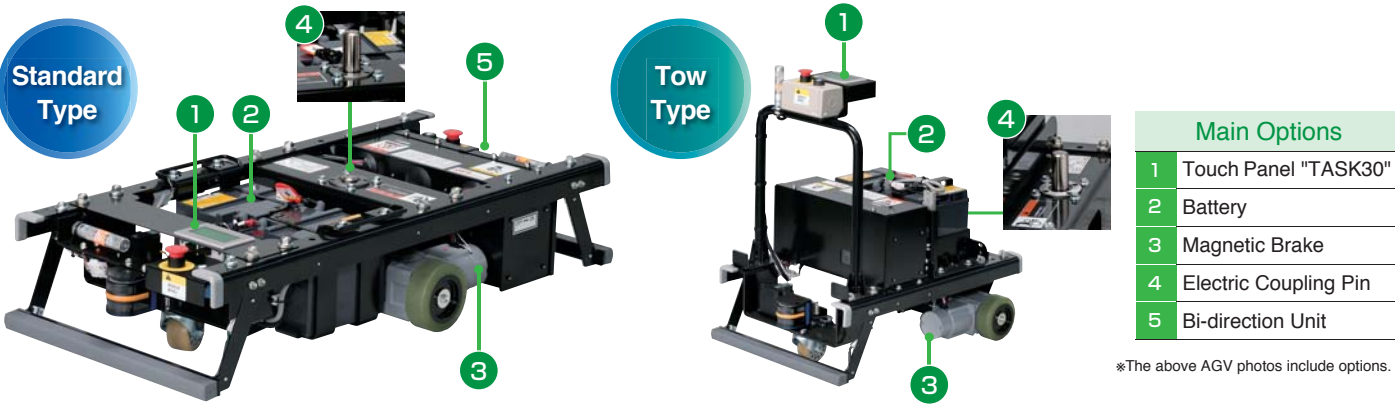
- Maintenance free drive module
“brushless motor, chainless drive application, etc”
- No Power cables to get wound by wheel speed control steering



※The above AGV photos include options.

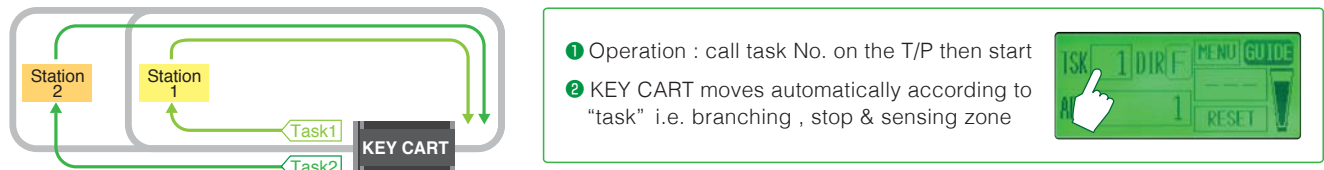
A variety of selectable options

Make up the functional AGV



OPTION ▶ *Excel® spread sheet programming*
User friendly setting TASK30

■ Max 30 route pattern "task" setting



■ TASK30 / touch panel presents the convenient multi functions available.



■ Task pattern uploaded by an Excel® file



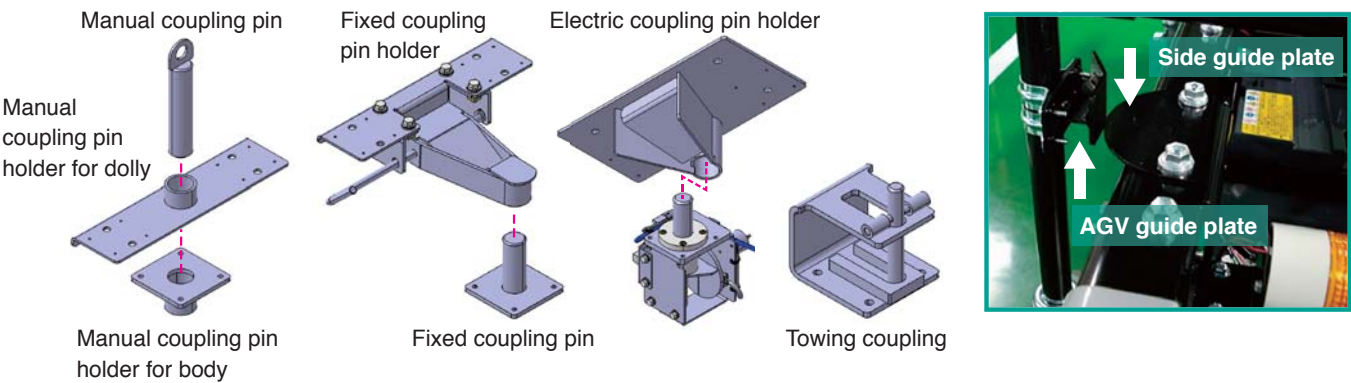
■ Efficient multi operational patterns are available.



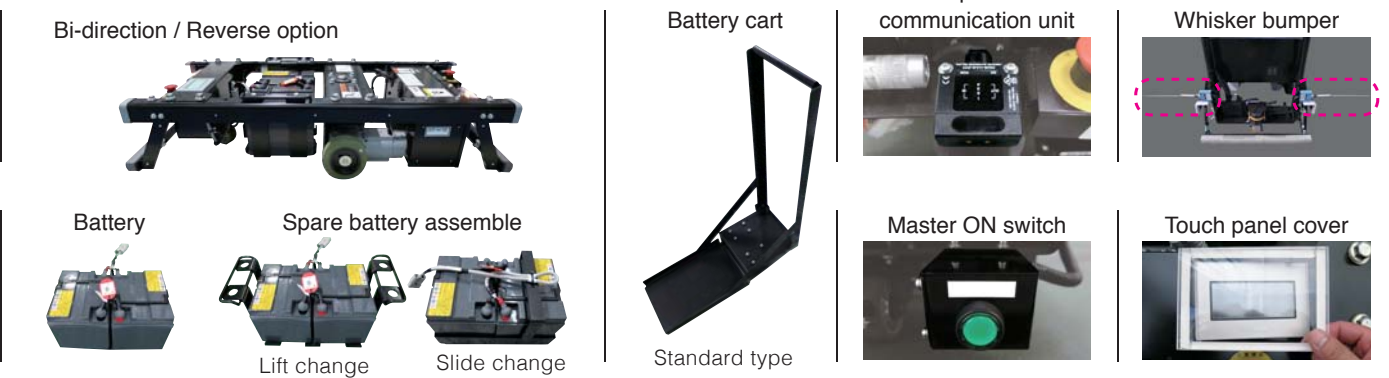
*The above AGV photos include options.

OPTION ▶ *Variety of attachments!!*

■ Select the fit coupling attachments



OPTION ▶ *Other options*



Options

AGV options		Standard Type		Tow Type	
ITEM		option	additional options	option	additional options
Bi-direction		<input type="checkbox"/>	N/A	—	—
Whisker Bumper (Forward Only)		<input type="checkbox"/>	X	<input type="checkbox"/>	X
Whisker Bumper (Forward & Backward)		<input checked="" type="checkbox"/>	X	—	—
Magnetic Brake		<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A
Battery (with Cable)		<input type="checkbox"/>	X	<input type="checkbox"/>	X
Automatic Charge Electrodes (Right Side)		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Automatic Charge Electrodes (Left Side)		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Lift-Battery Type		<input checked="" type="checkbox"/>	X	—	—
Side Slide -Battery Type		<input checked="" type="checkbox"/>	N/A	<input checked="" type="checkbox"/>	X
TASK30 (Relative Address System)		<input type="checkbox"/>	X	<input type="checkbox"/>	X
Optical Communication Unit (Top Side)		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Optical Communication Unit (Right Side)		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Optical Communication Unit (Left Side)		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Wireless LAN Port		<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A
Master ON Switch		<input type="checkbox"/>	X	<input type="checkbox"/>	X
Touch Panel Cover		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Manual Coupling Pin Holder for Body		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Fixed Coupling Pin		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Electric Coupling Pin		<input checked="" type="checkbox"/>	X	<input checked="" type="checkbox"/>	X
Towing Coupling		—	—	<input checked="" type="checkbox"/>	X
Side Guide Plate		<input type="checkbox"/>	X	—	—

Peripheral options		Standard Type	Tow Type
ITEM			
Spare Battery (Lift Type)		<input checked="" type="checkbox"/>	—
Spare Battery (Slide Type)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Battery Cart		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Manual Coupling Pin		<input type="checkbox"/>	<input type="checkbox"/>
Manual Coupling Pin Holder for Dolly		<input type="checkbox"/>	—
Fixed Coupling Pin Holder		<input type="checkbox"/>	—
Electric Coupling Pin Holder		<input type="checkbox"/>	—
Attachment Plates of the Dolly		<input type="checkbox"/>	—
Battery Charger (AC100V)		<input type="checkbox"/>	<input type="checkbox"/>
Battery Charger (AC200V)		<input type="checkbox"/>	<input type="checkbox"/>
Battery Charger (AC220V)		<input type="checkbox"/>	<input type="checkbox"/>
Battery Charger (AC240V)		<input type="checkbox"/>	<input type="checkbox"/>
Automatic Battery Charger (Stroke:150mm)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Automatic Battery Charger (Stroke:500mm)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Automatic Battery Charger (Stroke:800mm)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optical Communication Unit (Ground Side)		<input type="checkbox"/>	<input type="checkbox"/>
PC Cable (for RS-232c)		<input type="checkbox"/>	<input type="checkbox"/>
PC Cable (USB/232C Converter)		<input type="checkbox"/>	<input type="checkbox"/>
Magnetic Guide Tape (N pole, 30mm x 25m)		<input type="checkbox"/>	<input type="checkbox"/>
Magnetic Mark Tape (N pole, 50mm x 1m)		<input type="checkbox"/>	<input type="checkbox"/>
Magnetic Mark Tape (S pole, 50mm x 1m)		<input type="checkbox"/>	<input type="checkbox"/>

□---Option ■---Option with limitation

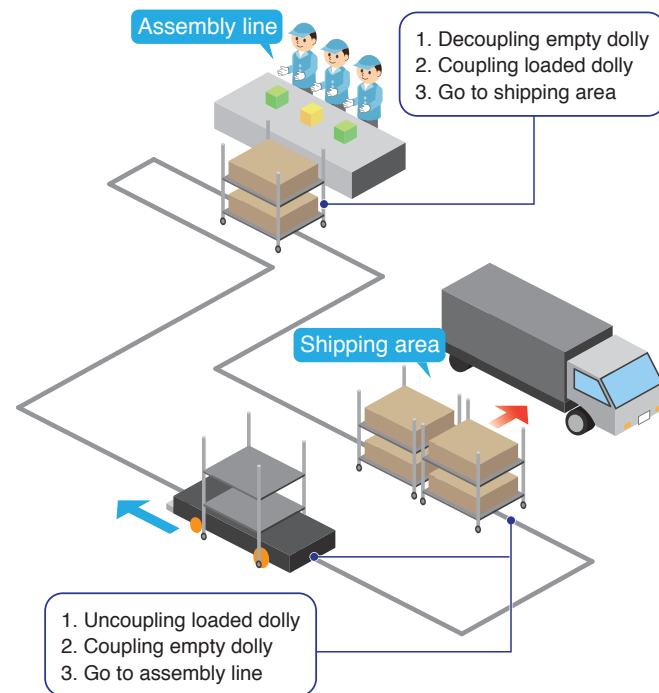
► SYSTEM APPLICATIONS

A variety of carts and attachments

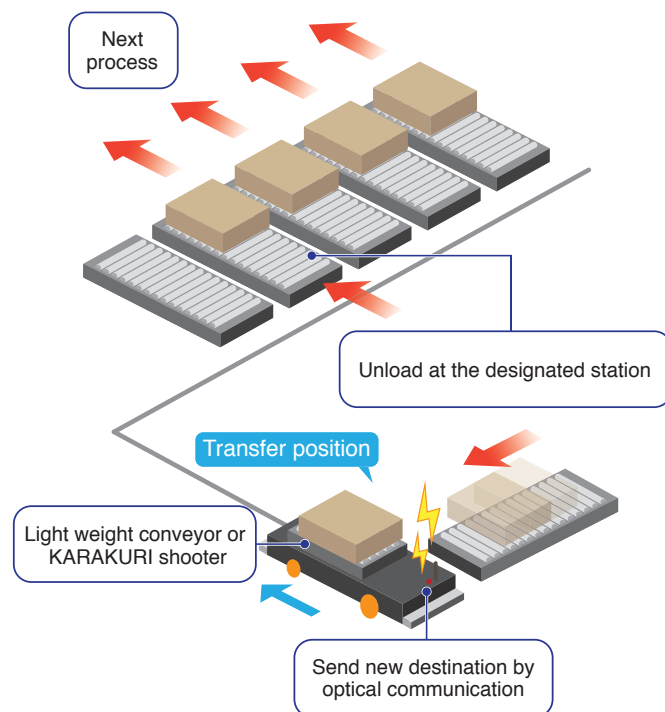


※Carts & attachments are customer's or local dealer's supply.

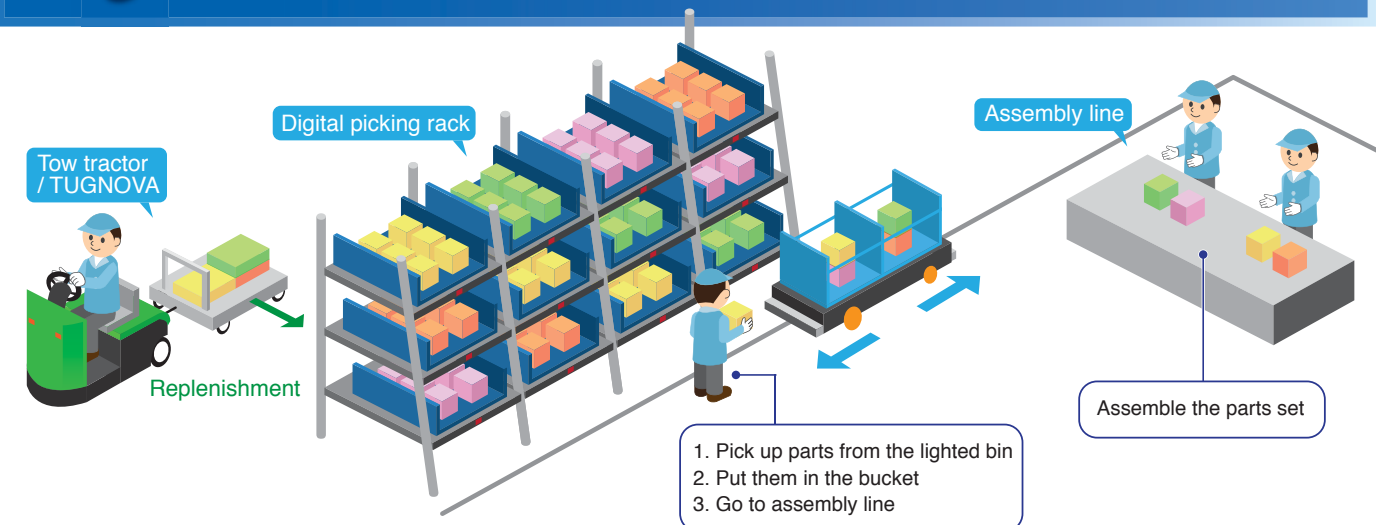
CASE 1 Automation of manual dolly



CASE 2 Automation of sorting



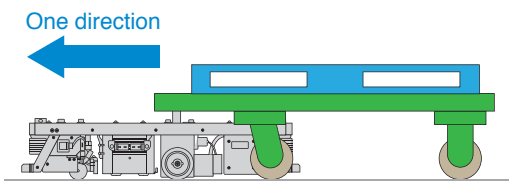
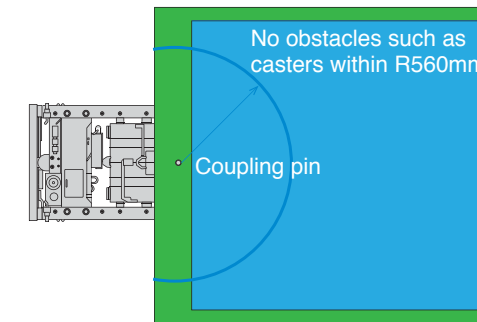
CASE 3 Set parts supply system



► Loading or Towing capacity

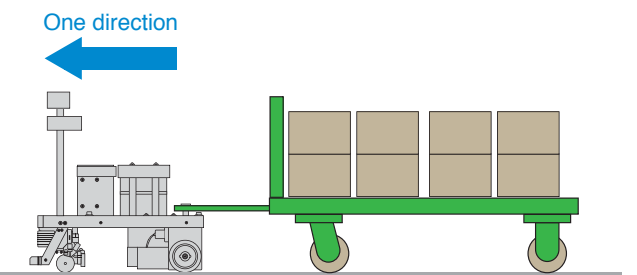
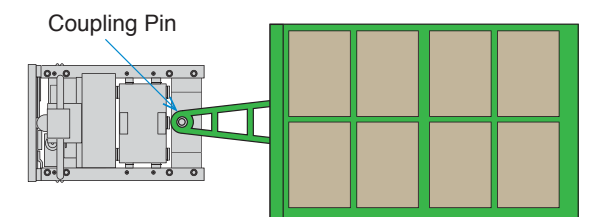
※Max capacity is reference info only.

One point coupling With wide cart "rear casters are rigid"



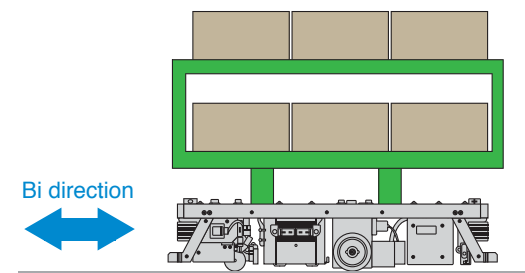
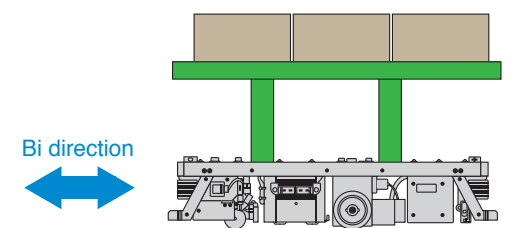
Max Towing Capacity : 500kg

One point coupling With manual dolly "rear casters are rigid"



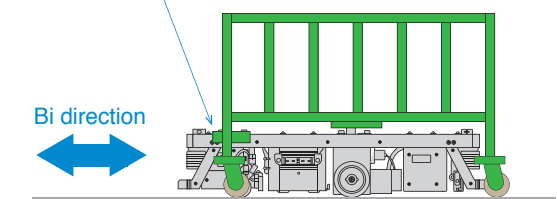
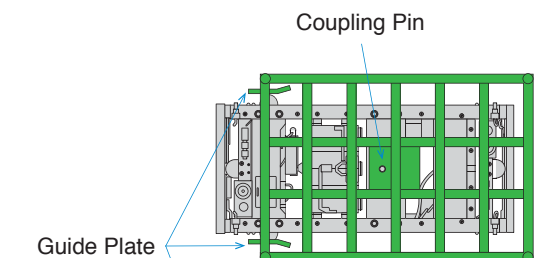
Max Towing Capacity : 500kg

Direct loading



Max Loading Capacity : 200kg

One point coupling & two points guiding With caster-cart "all casters are swivel"



Max Towing Capacity : 50kg

1. The moment of inertia of total load (cart + dolly + load) is dominant rather than the total load itself.
2. The higher the towing capacity, the closer the center of load should be to the connection pin.
3. The lower the speed, the higher the towing capacity.
4. The load capacity and the towing capacity can be lower due to the load dimensions, load center offset, and so on.
5. Operational testing is requested prior to the commercial operation.