

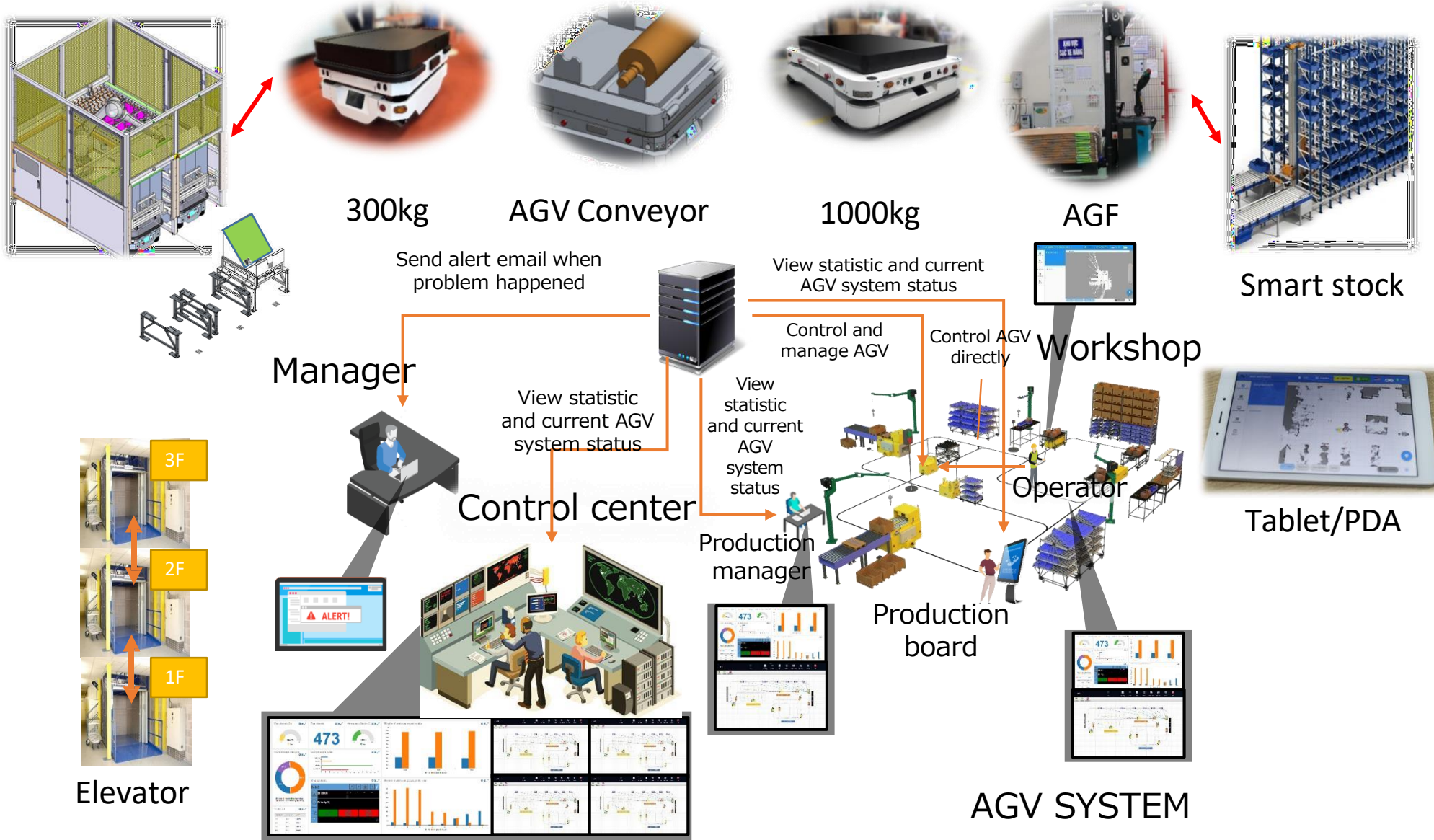
Automated guided vehicle - AGV

With highly experienced engineers in various fields, we can provide comprehensive solutions for customers about AGF (Automated Guided Forklift – Autonomous Forklift) and AGV (Automated Guided Vehicles) including management system of AGV/AGF combined with the factory's existing MES production management system. Our system is capable of meeting the diverse needs of customers, from basic functions (move on available lines) at low cost, to advanced functions (no need lines to move, avoiding obstacles, automatically identify pallets by Artificial Intelligence (AI),..., from control system using microcontrollers to control systems using PLC or industrial computers, from AGV/AGF operates independently to AGV/AGF system gets combined to operate in a complete system.

Our AGV/AGF products have been applied in many manufacturing plants in real life and received positive feedback from customers.



Model



Functions

Operate 24/7

AGV/AMR/AGF is controlled by computer system, operate constantly in 8 hours while being fully charged and can operate in all weather or harsh environment.



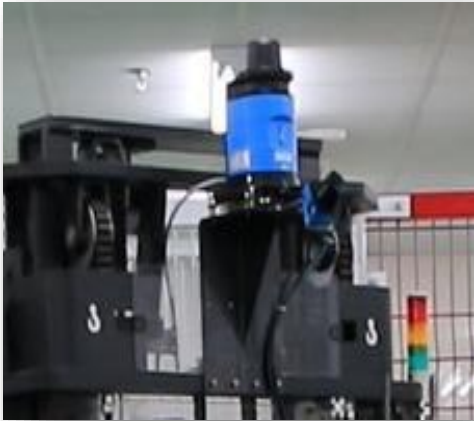
Safe

Around the machine is equipped with laser sensors that are very safe and help detecting obstacles and stopping immediately when finding some obstacles. Its is absolutely safe and reduce occupational accidents.



Flexible

Positioning sensors using magnetic/laser technology help adapt to diverse terrain, easily change the operating time.



Integrative

Can be integrative with other automation systems such as MES, conveyors, elevators, PDAs... to form a system of loading/unloading good, smart warehouses

1. Improve labor productivity

AGV is programmed to work with high accuracy and constantly updated to ensure the delivery process does not have any mistakes. Operating 24/7 helps to optimize labor productivity.

Easily layout warehouses and increase the accuracy of inventory.

2. Absolutely safe

Automated Guided Vehicles AGV operate on a pre-programmed system with a high accuracy and safety. Being equipped with a system of cameras and sensors, AGV can detect obstacles while moving, minimize damage during operating time. In addition, AGV also replaces people working in dangerous and harsh environment such as chemical, dusty, high temperature, super low temperature, construction sites, etc.

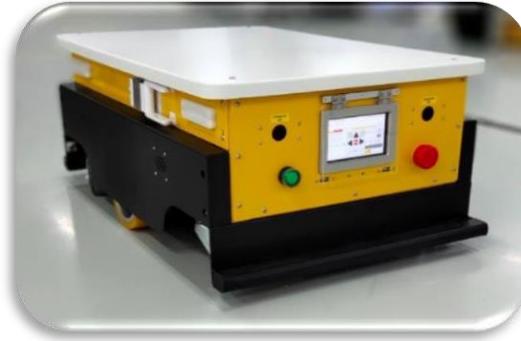
3. Reduce labor cost – Avoid labor shortage

Reduce labor in factory also in management, personnel, logistics and warehouse.

Moreover, every year employees have to be increased salary, bonus, overtime cost, holidays, insurance fee, etc. Compared to the cost of maintenance, repair and energy consumption, it is much higher.

Applications

1. AGV pulls goods



2. AGV operates in warehouse



3. AGV delivers goods



AGV300 (M-Series)

Specifications

- ❑ Size (LxWxH): 861x632x405 (mm).
- ❑ Navigation: Magnetic tape (or Laser - optional)
- ❑ Weight (included battery): 140 kg.
- ❑ Maximum liftup load: 300 Kg.
- ❑ Constant operation time: 6 - 10 hours base on types of battery
- ❑ Speed: 1.6 m/s.
- ❑ Battery: 24V-40Ah Lead-acid battery, (Or 24V-75Ah Lithium battery). Automatically charging
- ❑ Charging time from 0 to 100%: 3 – 8 hours base on types of battery
- ❑ Lifting process: 60 mm.
- ❑ Connection: Wifi 2.4/5 GHz, USB, Ethernet.



AGV1000 (M-Series)

Thông số

- ❑ Size (LxWxH): 1360x1130x443 (mm).
- ❑ Navigation: Magnetic tape (or Laser - optional)
- ❑ Weight (included battery): 400 kg.
- ❑ Maximum liftup load: 1000 Kg.
- ❑ Constant operation time: 8-10 hours
- ❑ Speed: 1.6 m/s.
- ❑ Battery: Litium 48V-60 Ah. Automatically charged
- ❑ Charging time from 0 to 100%: 4 hours.
- ❑ Lifting process: 65 mm.
- ❑ Connection: Wifi 2.4/5 Ghz, USB, Ethernet.



Specifications

Technology track

Communication Methods

Mode of transportation

Safety sensor

Acquy

Speed

Lift load

Lift height

Continuous operating time

Charging mode

Accuracy

Details

Laser

Wifi

Go straight, turn left, turn right,
rotate in place, manual mode

Front, back, left, right

Lead acid / Lithium

0 - 1.2 m/s

1600 Kg

4600 mm

8 hours from full charge

manual or automatic

$\pm 1\text{cm}$, $\pm 0.5^\circ$

