



# CG Warehouse



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CG Group:  
Hongkong-Shenyang-Suzhou

## **AUTOMATED WAREHOUSE: GENERAL INTRODUCTION:**

Automated Warehouses is a key component of modern logistics. The systems consists in general of an auto-control system, monitoring system, warehouse management system(WMS), racks, stacker crane, carrier, overhead crane.

The infeed and outfeed can be manually or by equipment, which can work semiautomatic or fully automatic.

The whole process is achieved by computer and auto-control system.

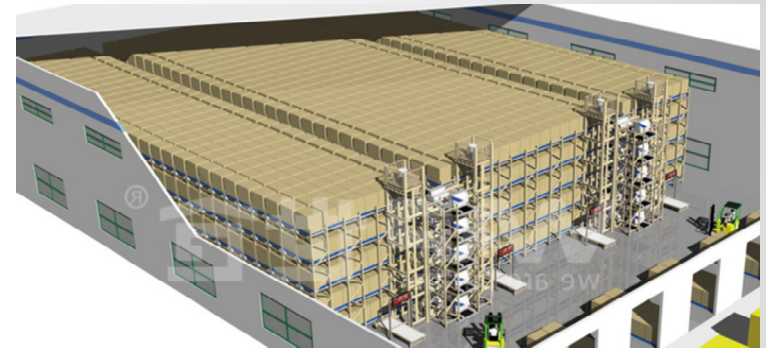
Depending on the specific requirements:

Systems like conveyor system, AGV, robotic palletizing, packaging system can be a part of the total system.

Automated storage and retrieval system are widely used in manufacturing, light, medicine, electrical appliance industries and other fields such as commercial businesses, material distributing centers, and tobacco factories.

## **AUTOMATED WAREHOUSE ADVANTAGES:**

- Save land space: Required storage space can be reduced to 10 %
- Save human resources cost at least 90%
- Total warehouse control: Permanent inventory control
- Intelligitized management, syscronization of documents and operation



We support our partners to realize their projects.



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## AUTOMATED WAREHOUSE

### SOFTWARE: Warehouse Management System (WMS)

#### WMS in general:

Proofed software for managing the warehouse and logistics demands.

Management and Control System is the system platform to implement logistics automation information management and equipment control of warehouse. It mainly consists of three core systems: Intelligent Warehouse Management System (WMS), Intelligent Warehouse Interface System and Intelligent Warehouse Monitoring System (WCS).

- 1.1.1 Basic data management
- 1.1.2 Infeed management
- 1.1.3 Outfeed management
- 1.1.4 Inventory management
- 1.1.5 System Management
- 1.1.6 Task management
- 1.1.7 Statement statistics
- 1.1.8 Quality management
- 1.1.9 Pre-warning management
- 1.1.10 Production management
- 1.1.11 WMS-ERP interface



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# AUTOMATED WAREHOUSE

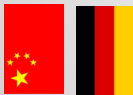
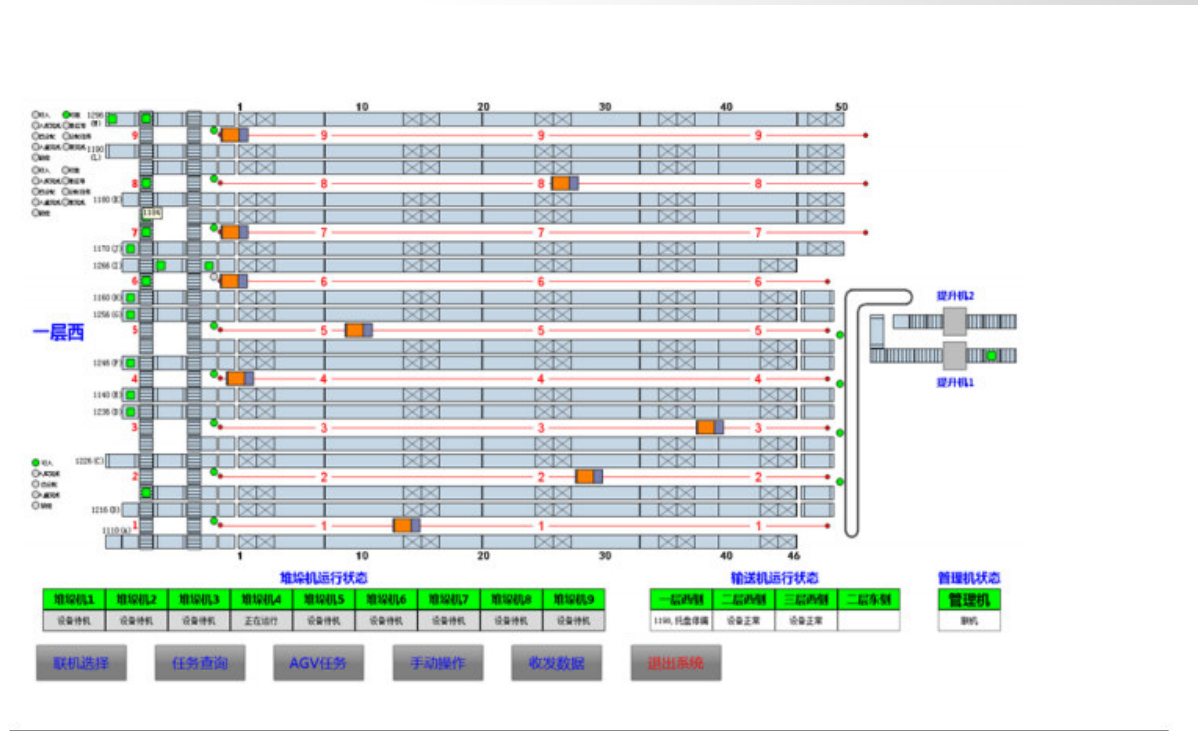
**Software:** Logistic Equipment Control System (WCS)

## WCS general function:

The automatic equipments controlled by WCS system are all controlled by PLC, mainly including conveyor PLC. At the same time, WCS system will carry out transportation control strictly according to WMS route instruction and WMS pre-determined priority and sequence (including WMS automatic instruction and manual instruction).

WCS system will coordinate the transmission control between conveyor PLC, and synchronize the connection and control between conveyor PLC and WMS.

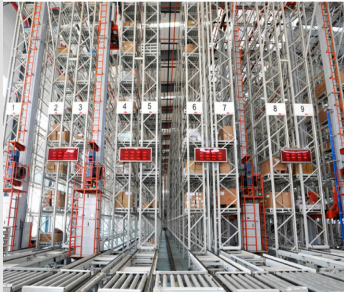
- 1.2.1 Visualization of WCS
- 1.2.2 Troubleshooting management
- 1.2.3 Restart
- 1.2.4 statistics reports
- 1.2.5 WCS status monitoring



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## AUTOMATED WAREHOUSE BASIC SYSTEMS:



### Stacker crane System

Automated storage and retrieval system (AS/RS) is a tailor-made solution which is suitable for high-volume throughput and operation with relatively small stock items. Loads are stored and retrieved by computerized and programmable aisle stacking cranes. It improves the loading and unloading become accurate sequential automatically and efficiently. Furthermore, it also improves the security and reduces pilferage.



Shuttle Carrier System

### The Radio Shuttle system

consists of a pallet racking system which completed with numbers of lanes and rails. Palletized goods are stored on the rack system and are transported by a carrier - shuttle car. The radio-controlled shuttle car is transporting the goods.



### Overhead Stacker System

Based on storage on the floor and an overhead crane. Goods are transferred to a certain area and be taken off a certain sequence as the outfeed demands. The qty and the specific product data are always saved at the Warehouse Management system



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**Depending on the specific requirements of the customer:**

- Warehouse size
- Product
- Capacity
- Throughput
- Environment

**We can provide the best solution**

**AUTOMATED WAREHOUSE  
SPECIFIC CASES:****AUTOMOTIVE: BUMPER Manufacturer**

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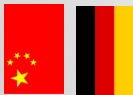


## AUTOMATED WAREHOUSE SPECIFIC CASES:

**CONSTRUCTION: CONSTRUCTION Material producer**



MDF/HDF construction wall panels



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**CERAMIC: SANITARY Ceramics producer**



**Data:**

**Performance:**

Capacity: 13,776 Pallets

Infeed:  $\geq 120$  pallet / hour

Outfeed:  $\geq 150$  pallet / hour

## AUTOMATED WAREHOUSE SPECIFIC CASES:

### COPPER: COPPER Treatment



#### 50 to storage

Based on storage on the floor and an overhead crane.  
Goods are transferred to a certain area and be taken off a certain sequence as the outfeed demands. The qty and the specific product data are always saved at the Warehouse Management system



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#### 20 TOOLS STRAGE

System with storage and automatic tool changer unit.  
Based on storage on special and an overhead crane. The tools are automatically changed during the production.

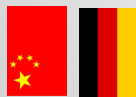


# References

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