



Radio shuttle racking system



maxrac 美库®
www.maxrac.com

Company Profile

Shanghai Maxrac Storage Equipment Engineering Co., Ltd. is one of the Chinese leading manufacturers of pallet racking and shelving systems with a long standing reputation for product quality, technical innovation and first class customer service. Maxrac provides various racking systems including shuttle intensive storage system, automation intelligent intergration system, pallet racking, shelving, mezzanine, cantilever and carton live storage for many industries, which is manufacturing, logistics, cold chain, retail, E-commerce ect. Maxrac export at least 1000 containers to more than 60 countries per year. All Maxrac products are designed and manufactured in accordance with standard of European FEM, Australia AS4084:2012 and American RMI.

Foreign Certificate



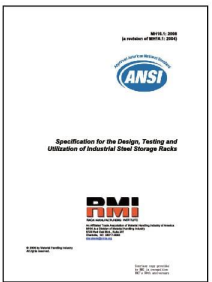
ISO9001:2008



AS4084: 2012



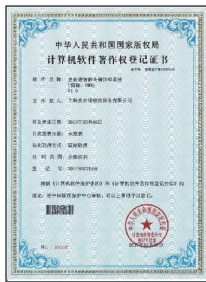
CE for pallet rack



RMI



CE for radio shuttle



WMS

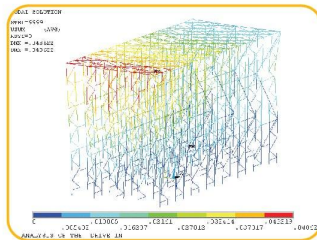
Domestic Certificate



China Green Warehousing And Distribution



High technology expertise



Shanghai Manufacturing Base



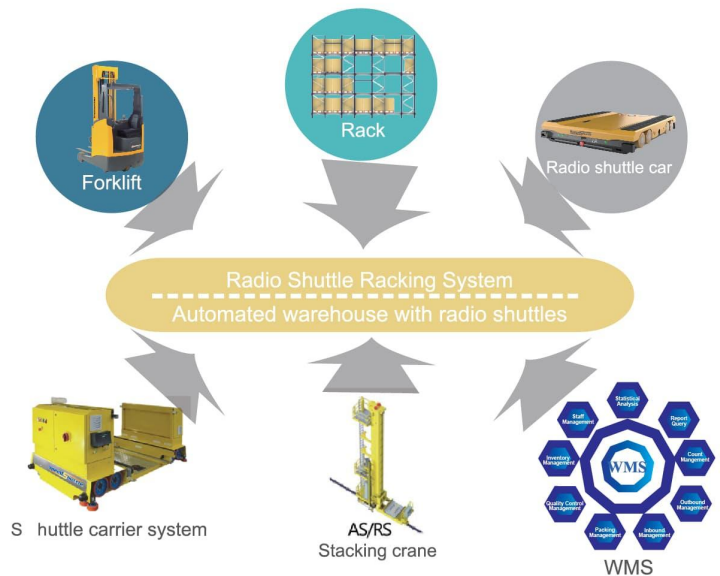
R&D Center



Radio shuttle

Radio shuttle is a semi-automated high density storage system, which is driven by a remoter, the shuttle carts with pallet move in the channel back and forth for transportation, forklift pick up in the end. It's a perfect option for drive in racking system using in cold storage, food and beverage industry and other low level of SKU.

Based on the features of the shuttle cart, combined with shuttle carrier, stacker, WMS etc. The system can be turned into small and medium sized warehouse system.



Anti-dust sensors
Standard equipment for the protection of sensors against dust and dirt

Battery
Innovative 48V lithium battery and well performance

Lifting situation
Integrated safety against finger crushing lifting (standard rising) 40mm
Carrying load 1.5T

Remote control
Multi-function
Multiple language
Resistant up to -30°C/-22F

Front optical sensors
Patented
Reliable
Safe
Unique

Emergency button
In compliance with the applicable safety regulations

Equipment Identity
Numerical recognition system among different speedshuttle used in the same plant

Rubber safety buffer
In compliance with the applicable safety regulations

Radio Shuttle Applicable Pallets

Pallet Type

Wood pallet best, Plastic pallet comes after, and steel pallet not suggest.

Pallet Application Notice

1. A plancon is needed at middle of Pallet Entry side, it is suggested width not less than 100mm. (If original pallet is not with it, an extra adding wood or plastic piece not less than 100mm is needed and should be done under Maxracengineer guidance.)
2. Pallet entry side must be with a long piece wood.
3. Normal Pallet Type





Pallet Deflection

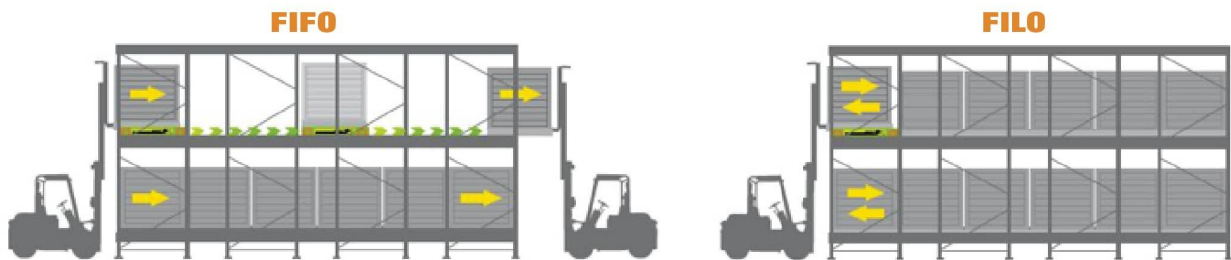
Pallet deflection should be not exceeding 25mm after loading $M \leq 25\text{mm}$

FIFO

The pallet load in from one side, pick out from the opposite side. This system is ideal for buffering units between two areas or when proper rotation is required. When the lane is not completely filled, the radio shuttle cart would relocate the pallets properly to make full use of the space and hold more pallets.

FILO

This is the most common application mode, pallets loading and unloading on the same side.No need to move if it's not necessary.



Main functions of radio shuttle

Intelligent remote(big remote): It can match 8 shuttle carts(need switch once shuttle cart changed), have functions of single infeed and outfeed, continuous infeed and outfeed, manual control, tally, inventory, far point, tracking shuttle carts, buzzer alarm, alarm reset, parameter set, change screen and switch method(FIFO, FILO). Customer can set interval and lift depth of pallets by themselves.

Standard remote(small remote): It can match 8 shuttle carts (need switch once shuttle carts changed), have functions of single infeed and outfeed, continuous infeed and outfeed, tracking radio shuttle, alarm reset. It is not allowed to set parameters, and cannot set interval of pallets and other parameters automatically.

Manual IN/OUT:

Manually press the remote control to achieve single in/out

Automatic IN/OUT:

Manually press the remote control to achieve multiple in/out

FIFO/FILO:

In single channel to achieve single car in/out at both side

A/B side auto switch:

Two shuttle carts no need of a meet to in/out after automatic switch

Buzzing search car:

Buzzer call in case out of visual range to find the car

Power display function:

It shows the remaining power for a reminder of a timely charging

Shift function:

The use of non-delivery time to count goods to improve efficiency

Specific quantity Out function:

Reduce human error, reduce the manual operation of the remote control

Single channel pallet count:

Count actual pallet number out of visual range, easy warehouse management

Daily working count:

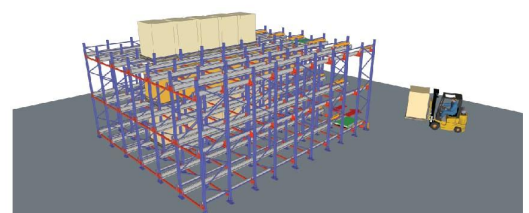
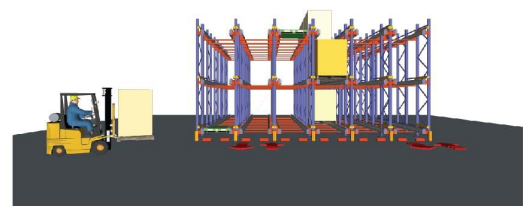
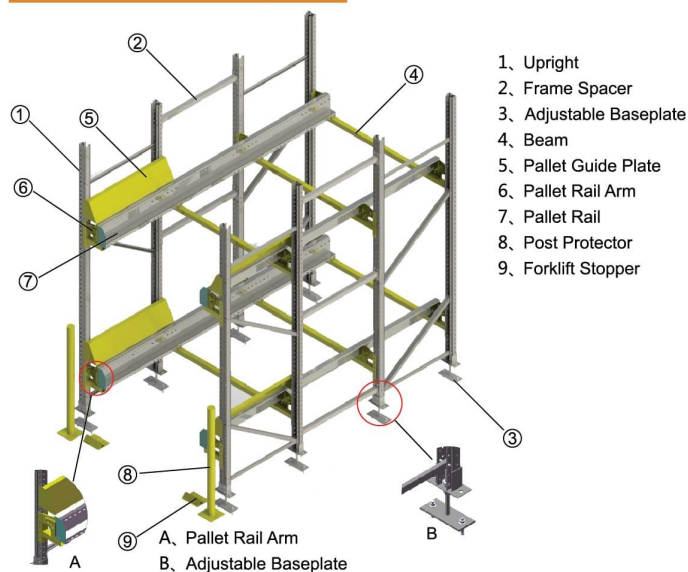
Reduce manual count working

Wireless communication system:

Controller is networking with host computer system to achieve more automations



Radio shuttle rack parts



Specification

Radio shuttle performance

Traveling Speed Loaded	0.8m/s
Traveling Speed Unloaded	1.2m/s
Working Period	10h
Weight	250kg
Remote Distance	500m
Carrying Load	1500kg
Pallet Size	1m-1.2m
Pallet Lift Height	45mm
Lifting and down time	1.5s

Battery

Voltage	24V
Capacity Lithium battery	60Ah
Charging Period	3 hours at room temperature (0 °C-45 °C) 6 hours at low temperature (-25 °C -0 °C)
Battery Life	more than 2000 times

Remote control

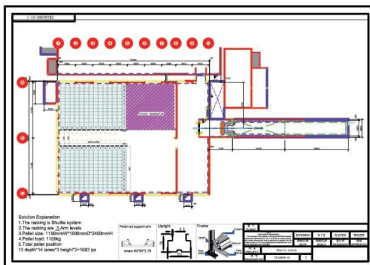
Frecuency	433.05MHz-434.6MHz
Battery	Rechargeable
Protection degree	IP 65
Screen	LED
Maximum distance	100m
Language	Chinese and English
Control modo	Manual and automatic
Comunication capacity	8cars
Working temperature	-31+70 °C

Radio Shuttle System Features

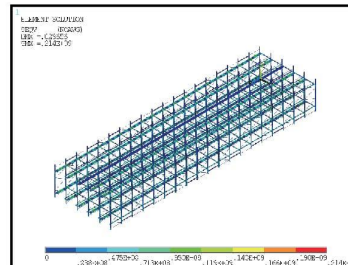
- Very high space utilization.
- Automatic access is 2 ~ 3 times of the forklift efficiency.
- No human labor needed in the racking system.
- The system advantage specially shows in the warehouse which with very deep
- Achieve FIFO management of goods.
- The shuttle cart can stock count the pallets in each lane.
- Make it more efficient for warehouse personnel to get the storage content.
- Suitable for big SKU.

Solution

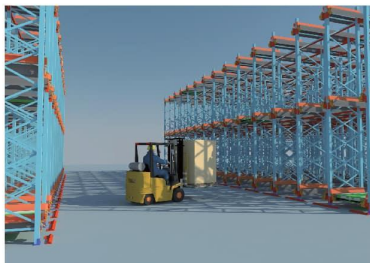
We offering professional one-stop storage solution



Solution design
Make detailed solution design base on client's requirement.



Mechanical analysis
Provide mechanical calculation & model selection according to AS4084 & FEM standard.



3D simulation
Providing customers with 1:1 simulation renderings by using 3D modeling software, can provide 3D animation for certain jobs to bring more intuitive visual effect.



Onsite handover
Scientific site management including installation, commissioning, training etc. Then handover to customer for use.

Applicable products & industry

Shuttle racking suitable for below product types

- ◆ Moderate SKU
- ◆ Big production batch
- ◆ High input & output frequency

shuttle racking suitable for below industries

- ◆ Cold chain industry
- ◆ Food beverage industry
- ◆ Liquor industry
- ◆ Pharmaceutical industry
- ◆ Logistics industry
- ◆ Chemical industry

◆ Substantial decline on labor cost



- ◆ Commodity industry
- ◆ FMCG industry
- ◆ Paper industry
- ◆ Packaging industry
- ◆ Fresh fruits & vegetables industry



Speed up your logistics

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