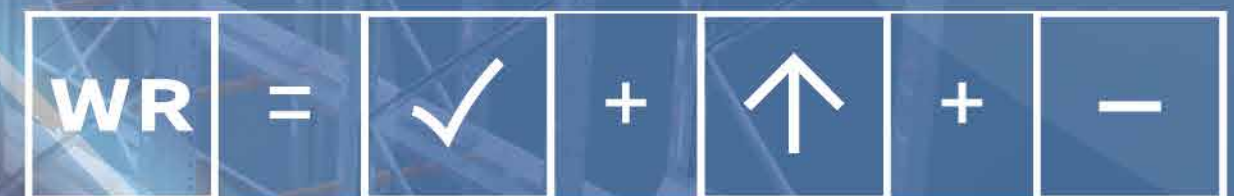


WR WORLD RACK



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Quality

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WORLD RACK INTELLIGENCE STORAGE EQUIPMENT CO., LTD

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☎ +886 3 3288329

✉ sales@world-rack.com

Focus on High-density Storage

About WR

The letter " W " is composed of two check marks, symbolizing our quality control and safety assurance.

The letter " R " is composed of a hyphen and an upward arrow, which represents the reduction of space, management and manpower, and at the same time can effectively improve production capacity and efficiency. The upward arrow also represents continuous innovation and improvement.



CONTENTS

PALLET RACKING.....03-08

RADIO SHUTTLE SYSTEM.....09-16

ASRS RACKING.....17-22

FRAME (teardrop)

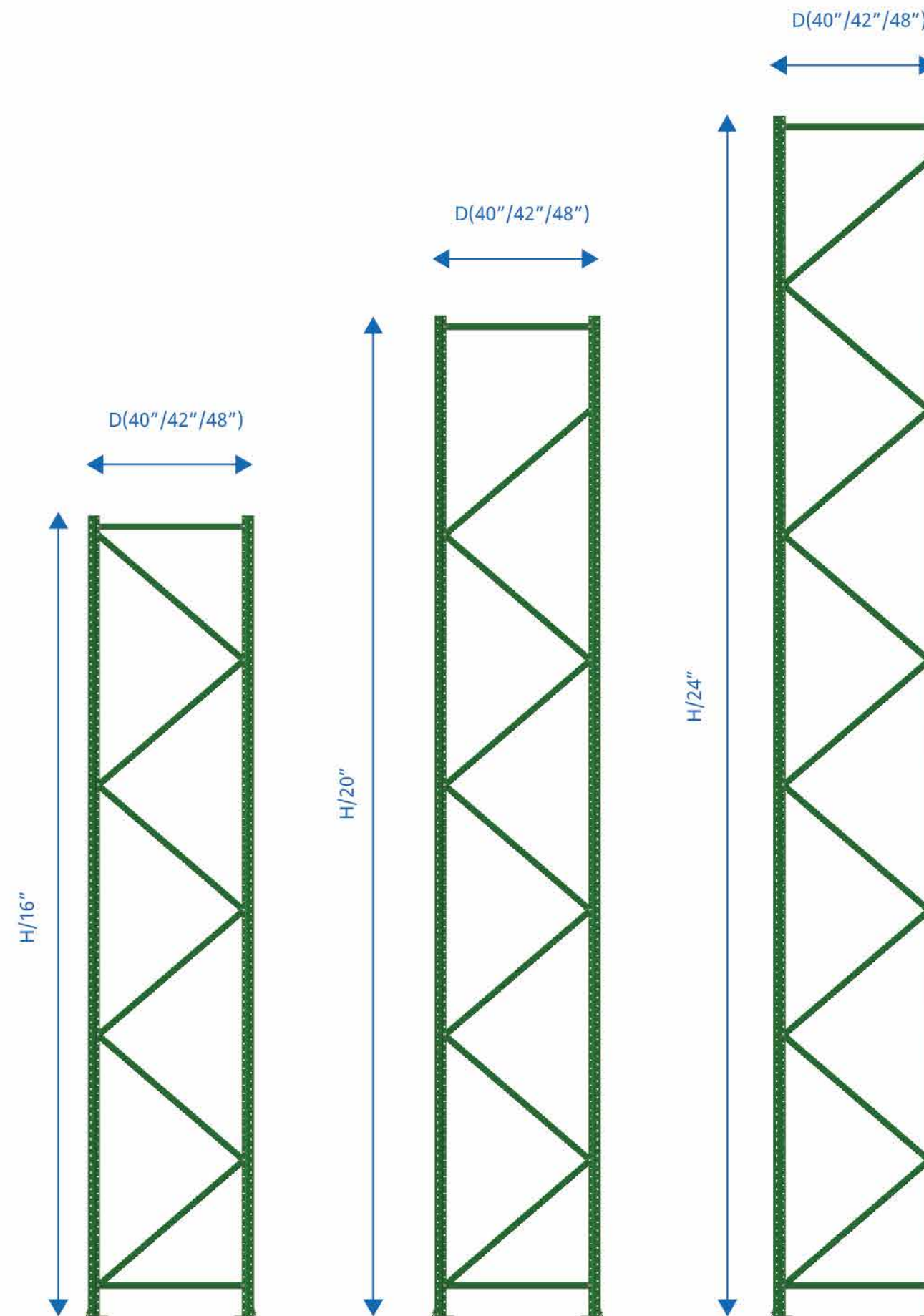
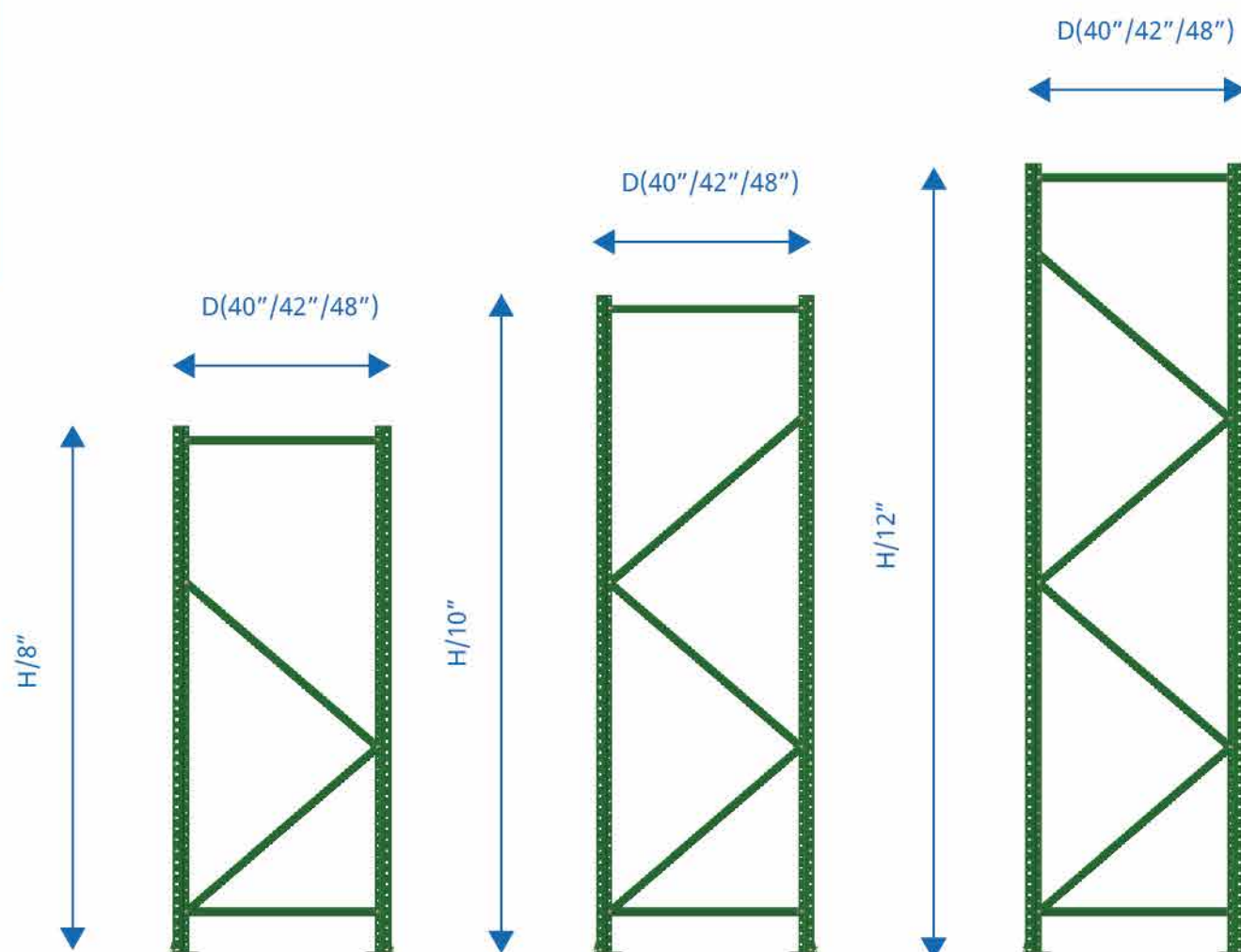
The cross-section of the upright is composed of 11 folded faces, with a large moment of inertia, strong bearing capacity, and high impact resistance.

The high-quality Q235B hot-rolled steel coil is cold-rolled through imported rolling machines, an advanced forming process offering stable material performance.

Upright holes employ a teardrop shape, allowing firm connections with hanging structures, which effectively prevent the risk of falling beams.

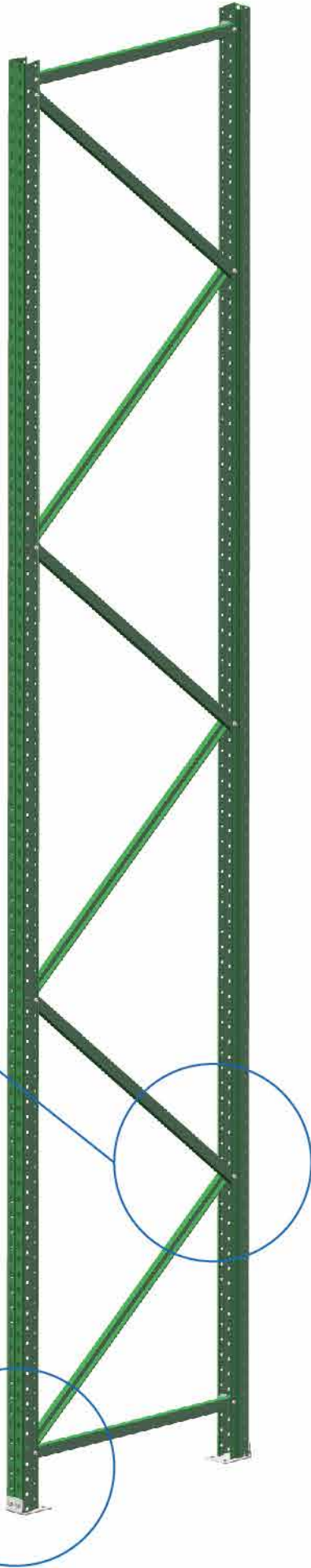
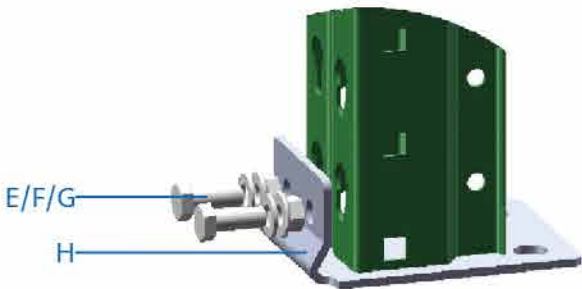
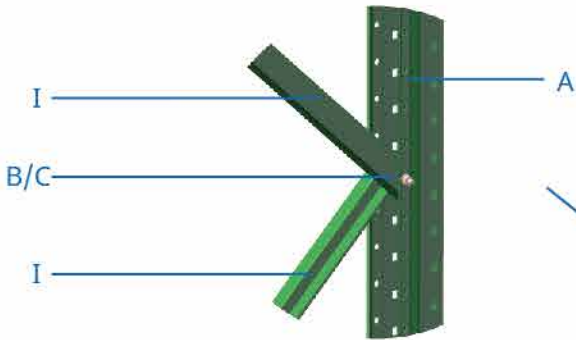
The surface is electrostatically sprayed with epoxy resin powder, which has strong anti-corrosion and anti-rust properties as well as a beautiful appearance.

The standard color is dark green RAL6000.



FRAME (teardrop)

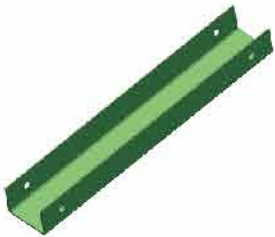
- A. Upright
- B. Hex flange bolt M8x65
- C. Hexagonal flange face nut M8
- D. Horizontal brace
- E. Hexagon head bolt M10x25
- F. Plain washer I series A10
- G. Hexagonal flange face nut M10
- H. Upright foot
- I. Diagonal brace



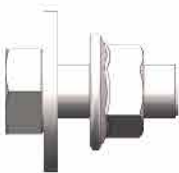
A. Upright



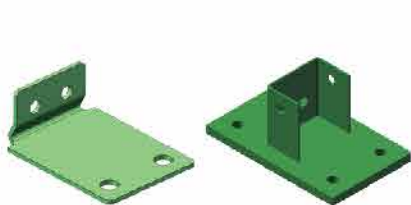
B. Hex flange bolt M8x65
C. Hexagonal flange face nut M8



D. Horizontal brace



E. Hexagon head bolt M10x25
F. Plain washer I series A10
G. Hexagonal flange face nut M10



H. Upright foot

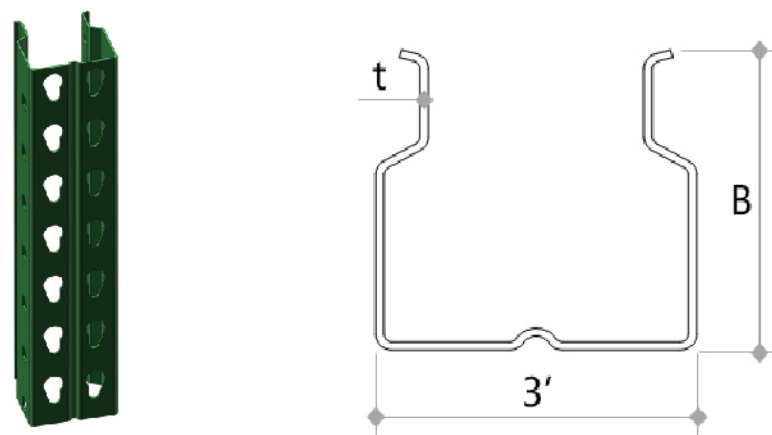


I. Diagonal Brace

Component Quantity List for Upright Frame

Name		H8'D	H10'D	H12'D	H14'D	H16'D	H18'D	H20'D	H24'D
A	Upright	2	2	2	2	2	2	2	2
B/C	M8*65L screw set	6	7	8	9	10	10	11	13
D	Horizontal brace	2	2	2	2	2	2	2	2
E/F/G	M10*25L screw set	4	4	4	4	4	4	4	4
H	Upright foot	2	2	2	2	2	2	2	2
I	Diagonal brace	2	3	4	5	6	6	7	9

FRAME (teardrop)



The cross-section at left shows the upright is composed of 11 folded faces, with a large moment of inertia, strong bearing capacity, and high impact resistance.

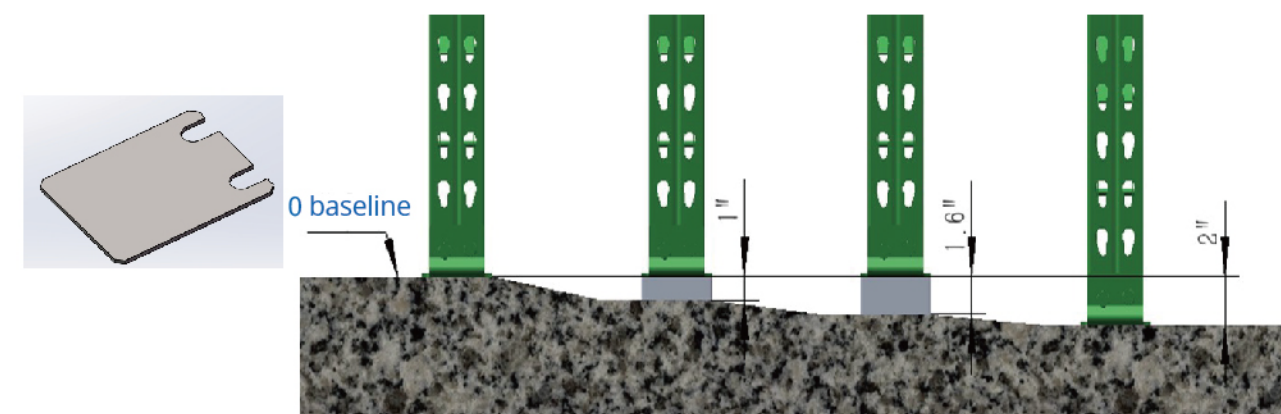
The high-quality Q235B hot-rolled steel coil is cold-rolled through imported rolling machines, an advanced forming process offering stable material performance.

Upright holes employ a teardrop shape, allowing firm connections with hanging structures, which effectively prevent the risk of falling beams.

The surface is electrostatically sprayed with epoxy resin powder, which has strong anti-corrosion and anti-rust properties as well as a beautiful appearance.

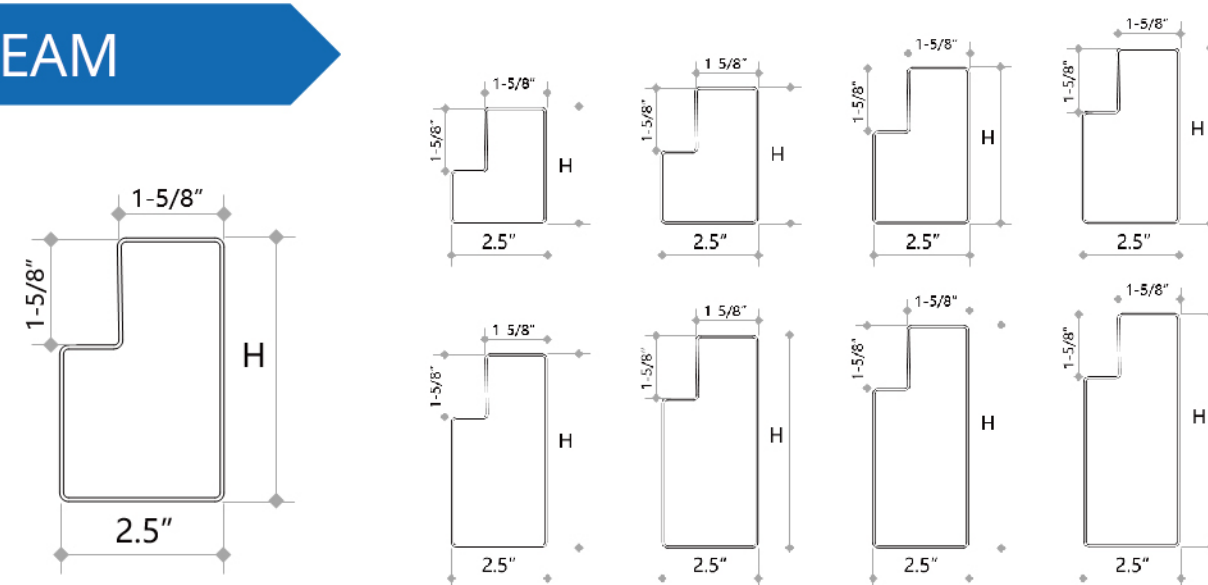
The standard color is dark green RAL6000.

FOOT PLATE SHIMS



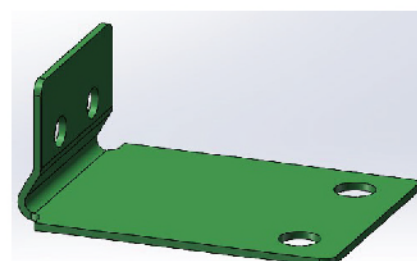
Foot Plate shims			
Frame	Gauge	Quantity per Frame	Finish
3"*3"	11	x2	galvanized
3"*3"	19	x1	galvanized
3"*3"	14	if requested x1	galvanized

BEAM

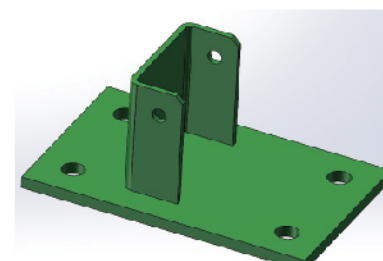


Model	Specifications	H	D	SD	SH
P25A3015	2.5" *3" *16GA	3	2.5	0.875	1.625
P25A3515	2.5" *3.5" *16GA	3.5			
P25A4015	2.5" *4" *16GA	4			
P25A4515	2.5" *4.5" *16GA	4.5			
P25A5015	2.5" *5" *16GA	5			
P25A5515	2.5" *5.5" *16GA	5.5			
P25A6015	2.5" *6" *16GA	6			
P25A6215	2.5" *6.25" *16GA	6.25			

FOOT PLATES



3"*3"-1



3"*3"-2

The high-quality steel plate is formed by punching and bending, providing a large moment of inertia, strong bearing capacity, and high impact resistance.

The expansion bolt is firmly connected to the ground to ensure the safety and stability of the whole rack.

The surface is treated with either epoxy resin electrostatic powder or galvanization, providing high wear resistance, strong anti-corrosion and anti-rust properties, as well as a beautiful appearance.



INTRODUCTION

The entire high-density shuttle racking system is composed of racking, shuttles, and forklifts. Forklifts are used to help loading and unloading on the end of racking aisles. This kind of dense and efficient storage mode brings new choices for improving warehouse space utilization rate.

FEATURES AND ADVANTAGES

High usage of floor space

Obtaining higher storage space per unit area, reducing ineffective spaces such as forklift aisles, and significantly improving warehouse utilization rate.

High efficiency in operation

The access efficiency is several times higher than traditional racking, especially suitable for storing products with large quantity but less SKUs.

Reduced labor cost

Automation can effectively reduce the workload of warehouse personnel, further lowering maintenance cost.

Portable battery

Battery of the shuttle is portable and rechargeable, and it won't be affected by the central power supply.

Improved safety, less damage

Loads are handled in a safer way during daily loading and unloading, which helps to reduce damage during operation.

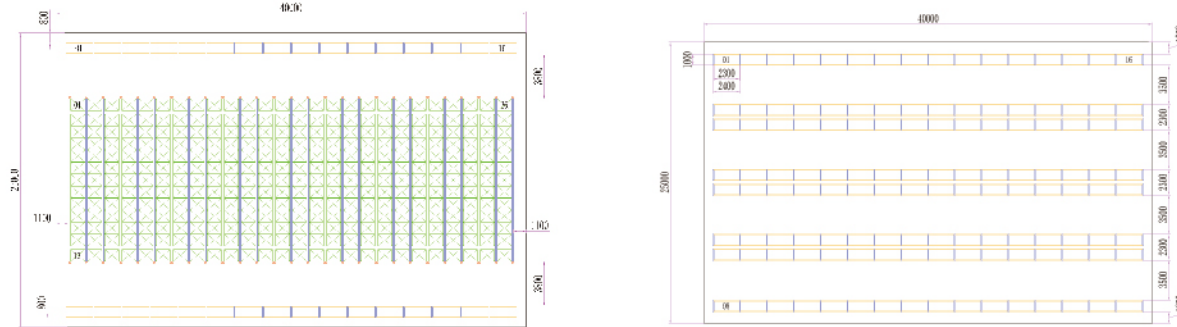
Environmental-friendly lithium battery

Our lithium battery is environmental-friendly, with strong durability.

RADIO SHUTTLE SYSTEM VS PALLET RACKING



VERSUS



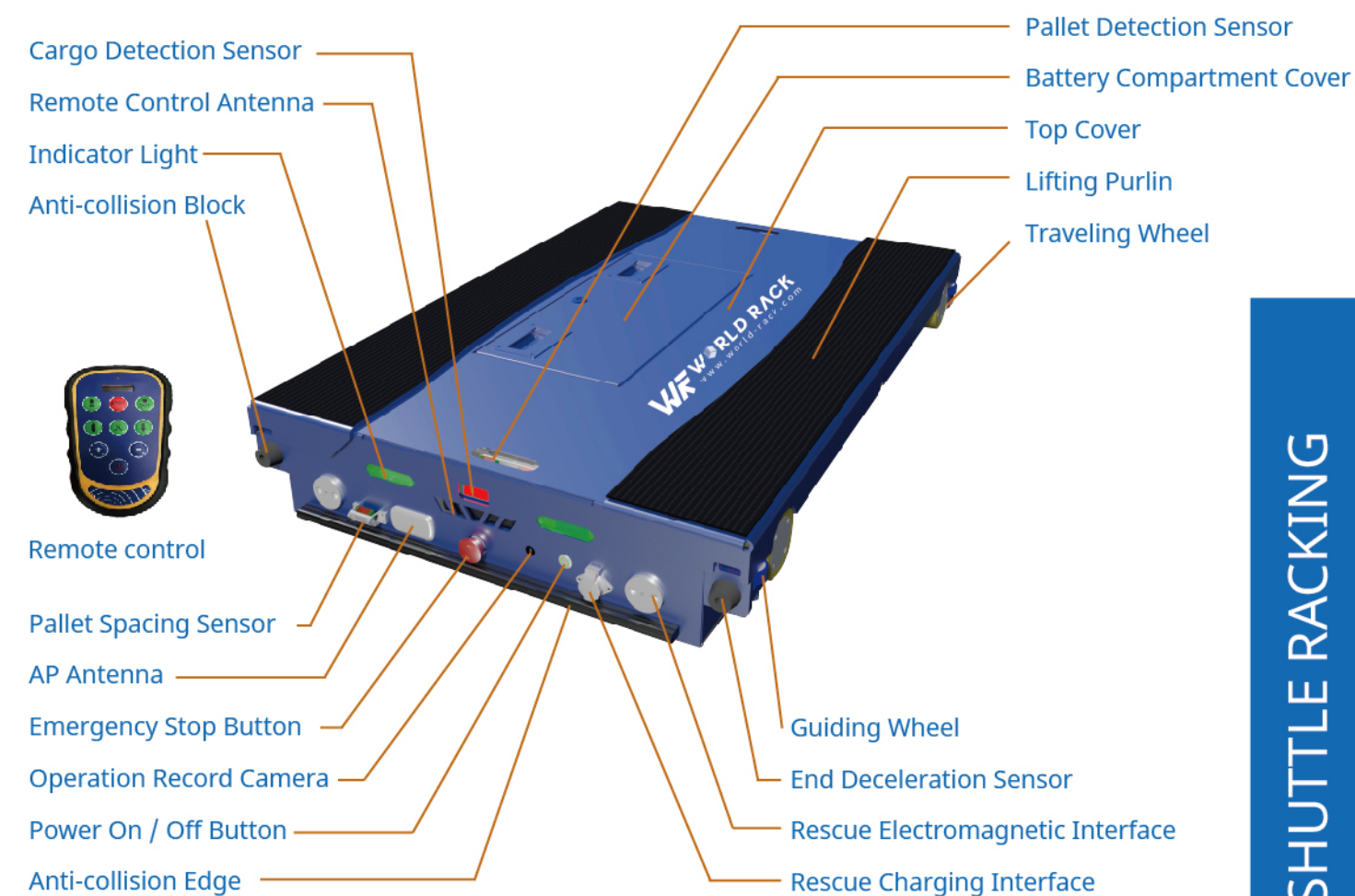
<p>1000m² Warehouse area</p> <p>635m² Rack area</p> <p>63% Warehouse utilization</p>	VERSUS	<p>1000m² Warehouse area</p> <p>342m² Rack area</p> <p>63% Warehouse utilization</p>
---	--------	---

PALLET SHUTTLE RACKING BENEFITS:

- Improve 60%~80% warehouse utilization rate
- Highly efficient operation, FIFO/LIFO
- Improve warehouse efficiency and reduce labor cost
- Change shuttle quantity to meet differene throughput requirements

SHUTTLE RACKING APPLICATION SCENARIO:

- Intensive product storage/semi-finished product storage/raw material storage
- Fresh/frozen storage
- Chemical raw material storage
- Third party logistics warehouse



Performance Name	Performance Parameter
RATED LOAD	1.8T
WORK TEMP	-30°C~+40°C
EMPTY LOAD	1.4-1.5m/s
FULL LOAD	0.9-1.0m/s
LIFING STYLE	Eccentric Cam
LIFTING HEIGHT	40mm
SHUTTLE WEIGHT	≈260Kg
NOISE	≤60dB
BATTERY TYPE	
BATTERY CAPACITY	48V40AH
BATTERY LIFE	6~8/H
CHARGING TIME	≤3/H
CHARGING VOLTAGE	180-260AC
CHARGING POWER	1200W
CONTROL STYLE	
RADIO FREQUENCY	400-470MHz
CONTROL DISTANCE	≈50m

FUNCTION

13 SHUTTLE RACKING

BASIC FUNCTION	Storage (per time)
	Continuous Automatic Pickup (per time)
	Automatic Pickup of Specified Quantity
	A/B Side Switching
	Goods-moving Function
	Manual Operation (moving, lifting, etc.)
	Battery Level Display
	Low Battery Alarm & Automatic Return
	One to Many Remote Control
	Pallet Stocktaking
SAFETY FUNCTION	Aisle Recognition
	Remote Control/ Wi-Fi Compatible Device
	Automatic Charging
	Forklift Assisted Positioning
	High Position Self-locking
	Collision Prevention & Safety bumper
	User Permission Settings
	Emergency Stop Button
MAINTENANCE FUNCTION	Built-in Positioning
	Tilt Detection and Fall Prevention
	Shuttle Camera
	End Anti-collision Laser
	Fault Code Display
	Maintenance Prompt
	Mileage Count
	Fault Rescue

SIEMENS

PEPPERL+FUCHS
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SENSING YOUR NEEDS

MOTION & CONTROL™
NSK

SICK
Sensor Intelligence.

Schneider
Electric

The core electrical components are selected from international first-line brands or domestic high-quality brands, which ensures a more stable performance and longer service life of our shuttle!

OPTIMIZATION OF NETWORK CONTROL SYSTEM

1. WALKING SYSTEM

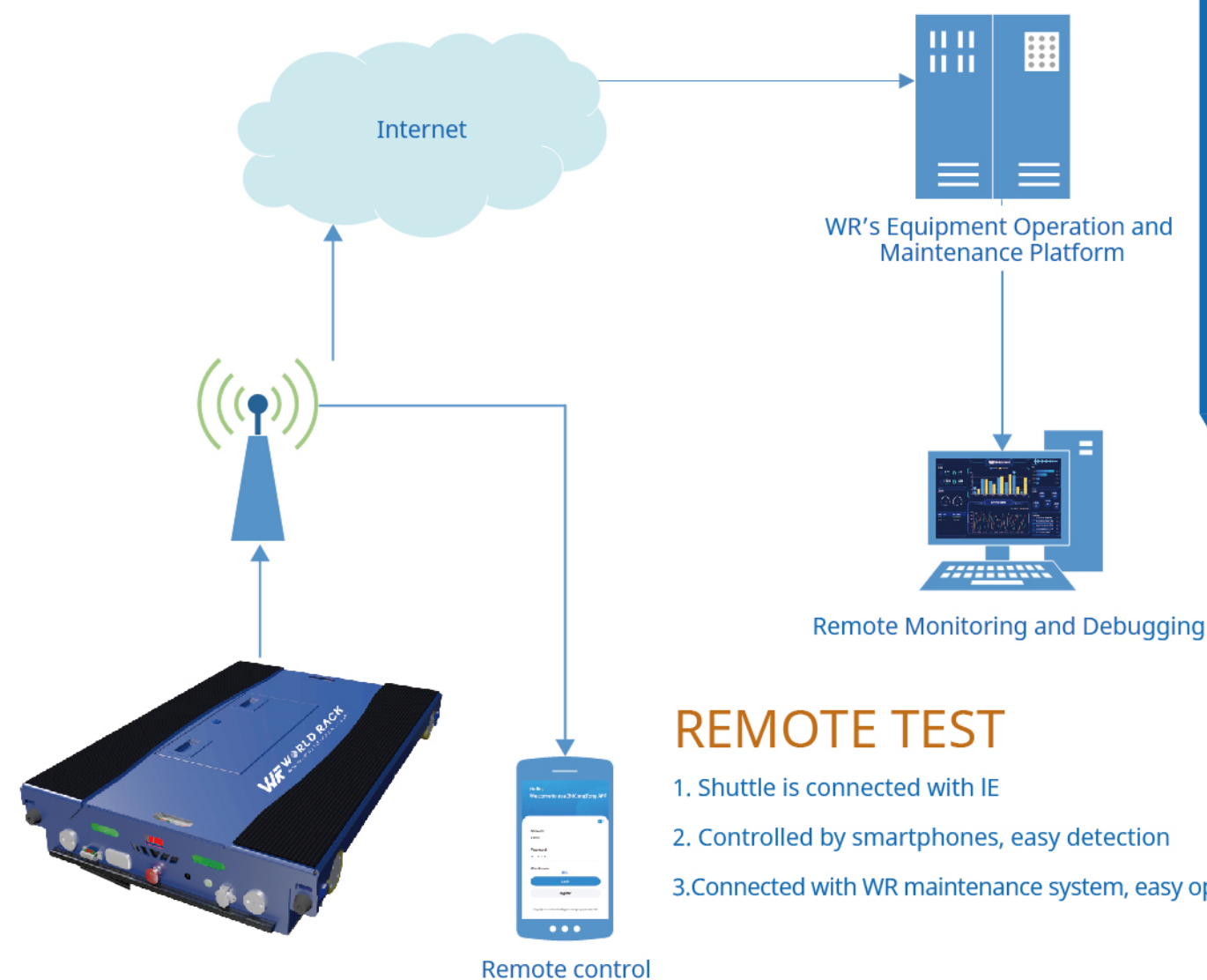
More reliable integrated bearings with longer lifespan

2. DRIVE SYSTEM

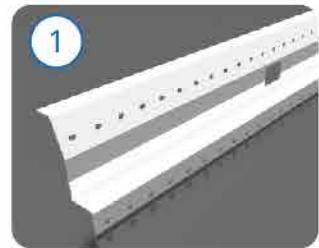
High rigidity gear transmission with long service life

3. MALFUNCTION RECORD

Working status is well recorded



14 SHUTTLE RACKING



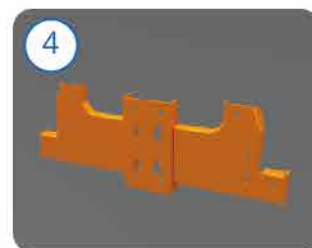
Rails



Row spacer



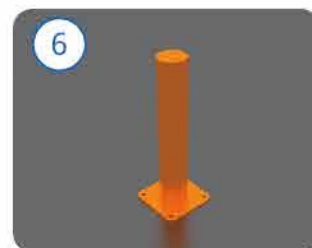
Cross bracing



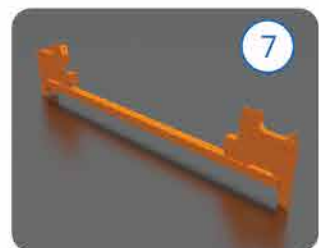
Bracket protector



Guider for pallet



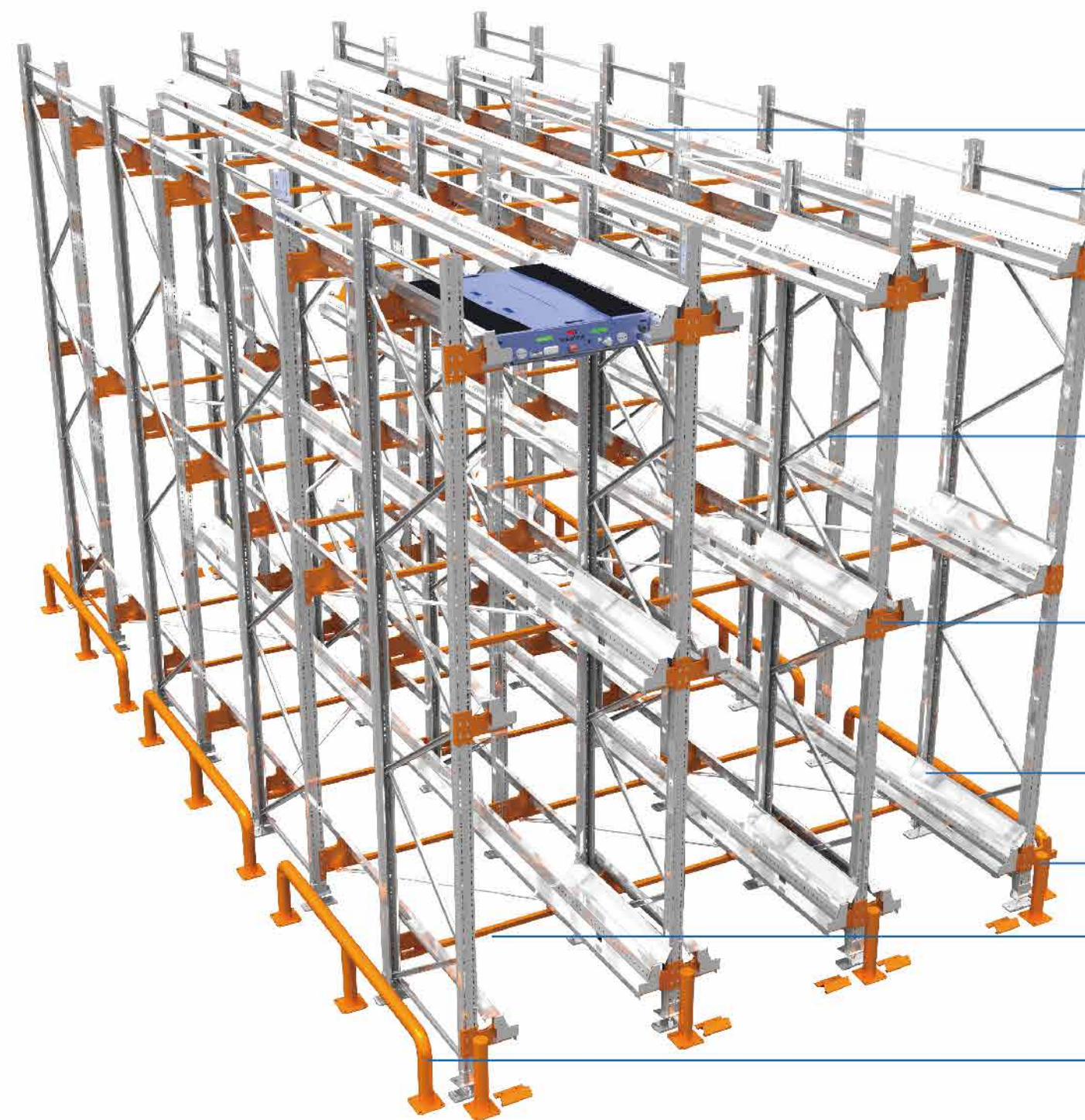
Pole protector



Support beam



Fence protector



- ① Rails
- ② Row spacer
- ③ Cross bracing
- ④ Bracket protector
- ⑤ Guider for pallet
- ⑥ Pole protector
- ⑦ Support beam
- ⑧ Fence protector



CHARACTERISTIC

ASRS racking comprises uprights and beams, the structure is simple, which makes it easy to assemble and disassemble. The connection between uprights and beams is usually achieved by bolts. According to the size of the pallet and the height of the goods, beams can be adjusted to meet the storage needs of different specifications.

Cooperating with stacker cranes, ASRS racking can achieve fast and accurate cargo storage and retrieval, reducing manual operations, further improving work efficiency. The size, color, material, etc. of racking can be customized according to customers' needs, meeting different storage requirements.

Safety:

Mechanized climbing, no personnel climbing operation on site

Efficient:

Standardized workflow and complete management personnel

Quality:

Product quality is inspected layer by layer

Delivery time:

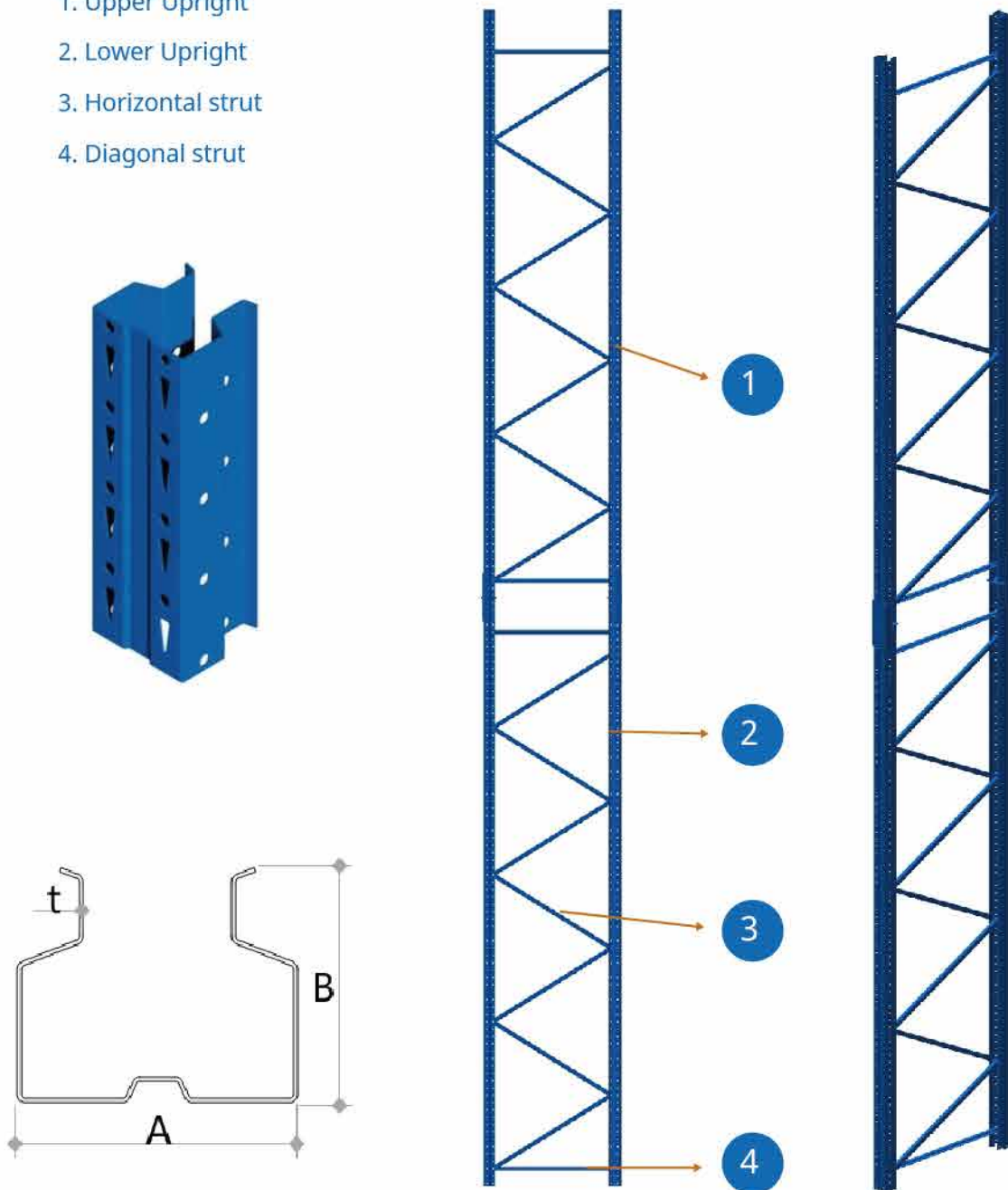
Own installation team, flexible personnel deployment

FRAME (triangle)

Frame is a vertical support structure of a three-dimensional shelf, which bears the horizontal and vertical loads of the shelf, ensuring the stability and safety of the shelf system. The height of the columns is usually matched with the height of the shelves, which can reach tens of meters, to achieve the utilization of high-rise space in the warehouse.

BASE COMPONENT

1. Upper Upright
2. Lower Upright
3. Horizontal strut
4. Diagonal strut

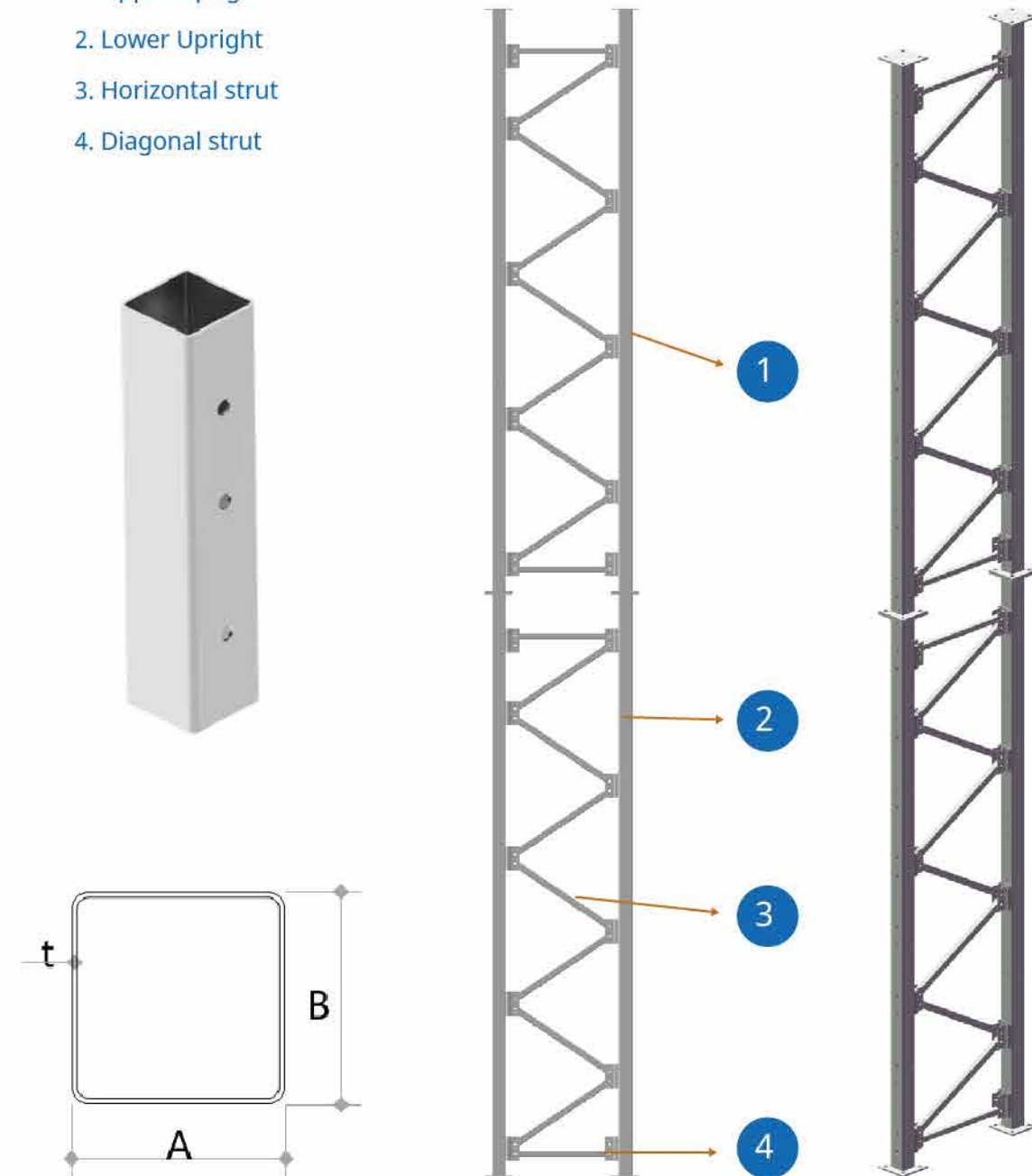


FRAME(hollow section)

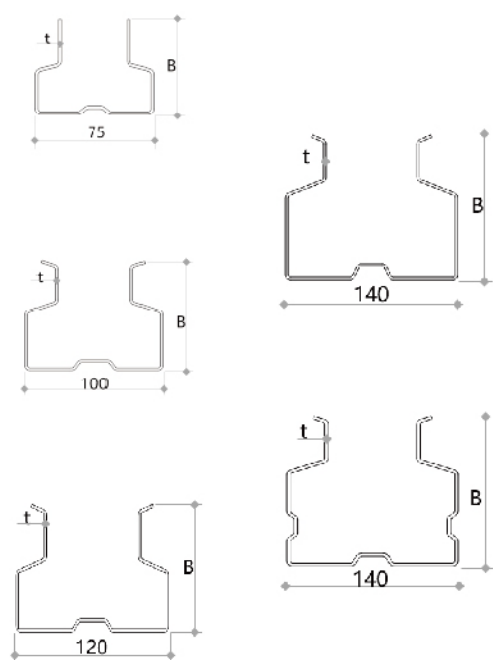
Frame is a vertical support structure of an ASRS racking, which bears the horizontal and vertical loads of the racking. Frame is essential for ensuring the stability and safety of the racking system. The height of the uprights is usually matched with the height of the racking, and it can reach tens of meters in order to achieve a high space utilization rate.

BASE COMPONENT

1. Upper Upright
2. Lower Upright
3. Horizontal strut
4. Diagonal strut

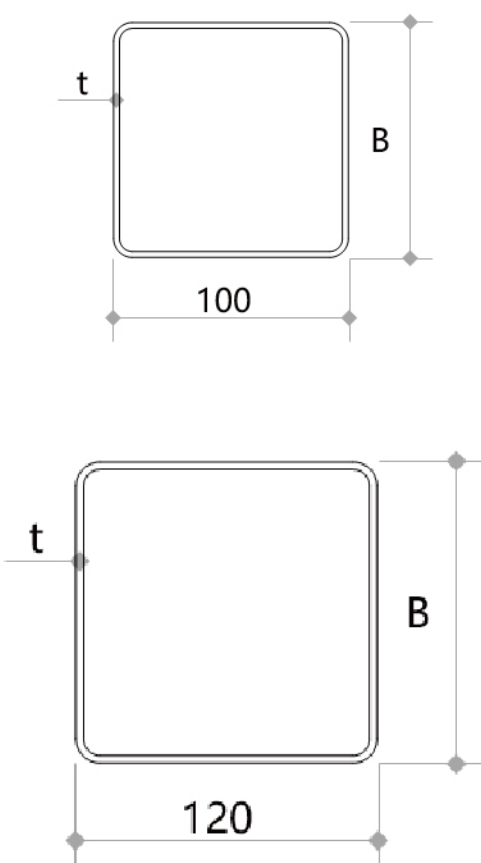


FRAME (triangle)



Model	Specifications
Ω75A18	75*55*1.8
Ω100A18	100*60*1.8
Ω100A20	100*60*2.0
Ω100B20	100*90*2.0
Ω100B25	100*90*2.5
Ω100B30	100*90*3.0
Ω100C30	100*120*3.0
Ω120A20	120*80*2.0
Ω120A25	120*80*2.5
Ω120A30	120*80*3.0
Ω120B30	120*130*3.0
Ω140A20	140*110*2.0
Ω140A25	140*110*2.5
Ω140A30	140*110*3.0
Ω140B30	140*150*3.0

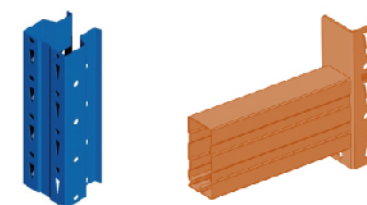
FRAME(hollow section)



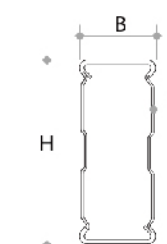
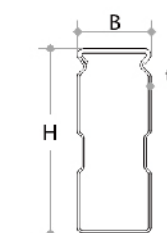
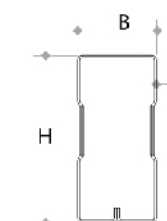
Model	Specifications
□100A25	100*100*2.5
□100A30	100*100*3.0
□100A40	100*100*4.0
□100A60	100*100*6.0
□100A25	100*100*2.5
□100A30	100*100*3.0
□100A40	100*100*4.0
□100A60	100*100*6.0

Model	Specifications
□120A30	120*120*3.0
□120A40	120*120*4.0
□120A60	120*120*6.0
□120A90	120*120*9.0
□120A30	120*120*3.0
□120A40	120*120*4.0
□120A60	120*120*6.0
□120A90	120*120*9.0

BEAM



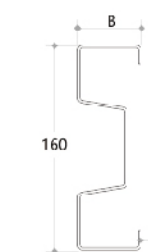
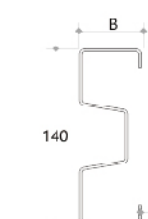
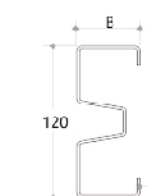
Applicable to FRAME (triangle)



Model	Specifications
BO0403815	40*38*1.5
BO1055015	105*50*1.5
BO1205015	120*50*1.5

Model	Specifications
BS0805013	80*50*1.3
BS1105015	110*50*1.5
BS1205015	120*50*1.5
BS1305015	130*50*1.5

Model	Specifications
BD0805013	80*50*1.3
BD1005015	105*50*1.5
BD1205015	120*50*1.5
BD1405015	140*50*1.5
BD1605015	160*50*1.5



Model	Specifications
Σ120A18	120*50*1.8
Σ120A20	120*50*2.0
Σ120A23	120*50*2.3
Σ120A25	120*50*2.5

Model	Specifications
Σ140A18	140*50*1.8
Σ140A20	140*50*2.0
Σ140A23	140*50*2.3
Σ140A25	140*50*2.5

Model	Specifications
Σ160A18	160*50*1.8
Σ160A20	160*50*2.0
Σ160A23	160*50*2.3
Σ160A25	160*50*2.5

Applicable to FRAME (triangle)
and FRAME(hollow section)