



**US INDUSTRIAL SOLUTION**  
COMPANY LIMITED

## **LOADING SOLUTION & INDUSTRIAL DOORS COLD STORAGE DOORS**



# ABOUT US

## OPEN LETTER

The **US INDUSTRIAL SOLUTION CO.,LTD** is one of the leading providers of Industrial Equipments under the name of **US SOLUTION**. The main products include: Insulated Sectional Doors, Single Skinned Sectional Doors, Roller Shutter Doors, PVC High Speed Doors, Cold Storage Doors, Dock Levelers, Dock Seals, Dock Shelters, Vehicle Restraints etc. Products are widely used in logistics, warehousing, manufacturing, cold chain industry, food and pharmaceutical industries. The company supply and install high performance products with turnkey solution – ranging from project development and planning to project implementation.

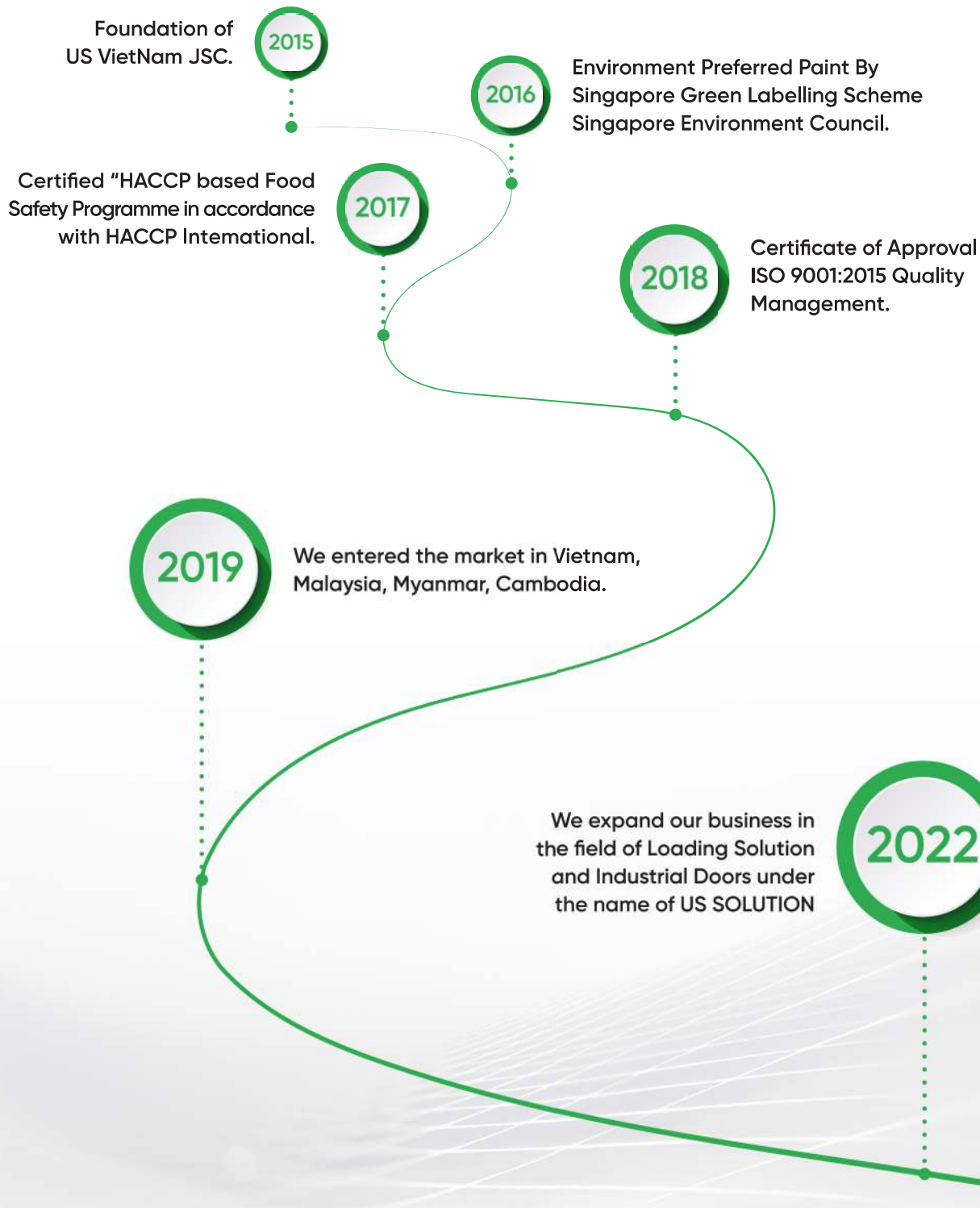
All team members are experts within this field, they can offer advice and information enabling our customers to make the right decision when choosing an application.

We are the preferred partner for sustainable turnkey solutions in Loading Solutions and Industrial Doors.

We strive to provide our customers with products and service that meet and even exceed their expectations. With the most professional, most outstanding and most satisfactory products and services. **US SOLUTION** continues to create the greatest benefits and value for the customers.

This catalogue is for reference only.  
We can produce according to customers' requirements.  
All technical specifications will be shown in the Technical Data Sheet and technical drawings.

## EVOLUTION





# DOCK LEVELER

**US SOLUTION** uses a hydraulic power unit to lift the upper main panel of the dock leveller through a main oil cylinder, and a small auxiliary oil cylinder pushes out the lip plate. It is very useful when dock height and truck height is different, and through the principle of the dock levellers self-weight drop, the lip plate is lifted to the near of the truck to complete the entire action.

The hydraulic type of dock leveller is currently the most commonly used and also the most widely used loading and unloading platform, with stable performance, simple operation, stable operation, low maintenance rate and easy repair.

## Characteristics

The overall product is using shot blasting to remove rust and electro-static spray to enhance corrosion resistance and adhesion;

Operation very convenient, make the loading and unloading job easy and fast, improve Logistic Efficiency;

Installation and service going very easy way and the quality very stability and long life time using .

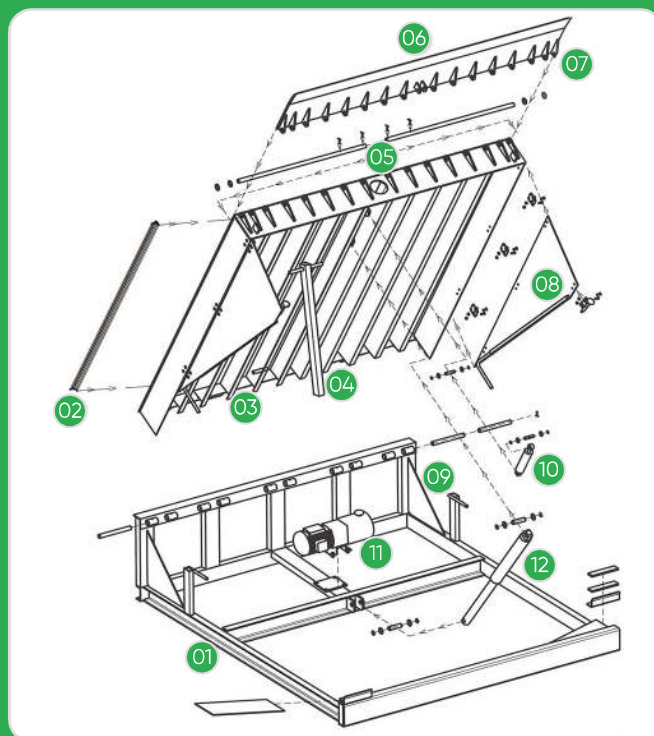
## Material Description

- Upper Plate: 8 mm thickness, anti-skate steel plate
- Swinging Lip: single 16 mm thickness, 400mm length
- Support Profile: C type Steel
- Working Range: -300mm ~ +300mm
- Adjustment Time: ≤30 seconds (from any position to corresponding max limited range)
- Power: 380V
- Electric Control Box: IP54 CPU integrated control system, with screen, display operation status, operation times, fault code and interlock, etc
- Dynamic Loading Capacity: 6000 ~ 15000kg
- Dock Bumper: Laminated dock bumper, D100mm x W200mm x L300mm, 2pcs/set
- Operating Temperature : +50°C ~ -25°C
- Color: Blue / Grey / Black, could be customized



## Structure Drawing of Dock Leveller

- |                       |               |                        |
|-----------------------|---------------|------------------------|
| ① Frame               | ② Side Seal   | ③ Foundation Supporter |
| ④ Maintenance Support | ⑤ Upper Plate | ⑥ Lip Plate            |
| ⑦ Hinge               | ⑧ Guard       | ⑨ Gusset Plate         |
| ⑩ Auxiliary Cylinder  | ⑪ Motor       | ⑫ Main Cylinder        |



# TELESCOPIC DOCK LEVELER



TELESCOPIC ELECTRIC STATIONARY DOCK LEVELLERS ARE WIDELY USED IN COLD STORAGE

## Applications

1. Site: Work Shop, logistic center, big cold storage centre etc.
2. Loading electric telescopic dock levelers use: Loading/ unloading Cargo etc.

Technical Specification	Parameters
Length, mm	2500/ 3000/ 3500/ 4000
Width, mm	2000/2200/2400
Lip Length, mm	800/ 1000
Working range, mm	+300 -250
Amount of cylinders	1pcs lift, 2pcs telescopic
Load Capacity, kg	6000/ 8000/ 10000
Colour	Green. Black. Blue

**Noted:** Usually the loading electric telescopic dock levelers width is 2000mm, it also can be custom as your requirements!.The lip can extend telescopic reached 800mm/ 900/1000mm.

# DOCK SEAL & DOCK SHELTER



**US SOLUTION** dock seals are available in 3 types : Dock shelter , sponge dock seal and inflatable dock shelter.

Dock seals act as a seal between the warehouse door opening and the truck body, ensuring maximum impermeability, preventing dust, wind, rain, insects and draughts from entering the facility.

Standard dock shelters are able to accommodate vehicles of any size from small vans to semi - trailer trucks. It is especially convenient to use dock seals at warehouses where perishable goods and goods with special transport requirements are loaded.

## Retractable Dock Seal

### Characteristics

Selection PVC with synthetic reinforcement remains flexible at a temperature range from  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ .

A retractable structure prevents damage to the dock shelter in case of incorrect parking.

The dock seal can have either a single upper sheet or a double upper sheet to ensure extra sealing. Do not require special maintenance.

### Front Curtain

**Longitudinal Tensile Force:**  $>550\text{N}$

**Transverse Tensile Force:**  $>900\text{N}$

**Ultimate Tensile Strength:**  $250\text{N}/\text{mm}^2$

**Thickness:** 3mm

**Working Temperature:**  $-35^{\circ}\text{C} \sim +90^{\circ}\text{C}$

### Aluminum Alloy Frame

**Back End Profile Size:** 50x44mm

**Front End Profile Size:** 45x44mm

**Frame Size:** 50x25x2.5mm

### Specification

**Width:** 3200 / 3400 / 3600mm

**Height:** 3400 / 3600 / 3800mm

**Top Drape:** 1000mm

**Material of Frame:** Aluminum Alloy

**Side Drape:** 600mm

**Air Impermeability:** Rainproof & Airtight 70%





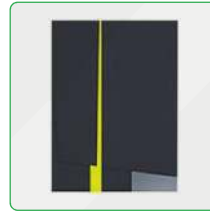
Aluminum alloy  
profile reinforcement



Yellow reflective  
warning tape



PVC cord



Curtain opening



Customizable size



Various types

### Inflatable Dock Shelter



**US SOLUTION** inflatable dock shelters keep the indoor and outdoor sealed isolation when the industrial door is closed when it is not in working state, when entering the working state, the industrial door is opened.

The dock leveler cooperates with the door shelter to make the car It forms a closed loading and unloading environment with the interior to prevent the entry of external debris, airflow, rain, etc., and ensures that the loading and unloading work is carried out conveniently; cleanly and safely.

### Technical parameter

Power	0.35KW
Voltage	3 phase, 380V 50 HZ
Control cabin	External
Average inflation time	40s
Operating temperature rang	-35°C ~ +90°C
Outside of airbag	0.8mm PVC material
Inside of airbag	Single/double-layer coated filmcurtain sheet inflated inside
Opening method	Electric or remote control

**US SOLUTION** Sponge dock seal provides a rainproof, windproof and air release convection operation envi ronment, and provides a highly airtight operation space for buildings and trucks, as well as preventing birds and insects from entering the buildings.

Excellent sealing performance can effectively reduce energy consumption, and wear-resistant polyurethane fiber materialis applied to various temperature environ ments.

The size of the dock seal is designed according to the size of the door. Suitable for fixed size vehicles.

### Sponge Dock Seal





# SECTIONAL INDUSTRIAL DOOR

Sectional Industrial Doors are widely applied for places of facilities-production, ware house, commercial, office and other premises with heavy traffic intensity, they consist of three main elements: door leaf, track system and torsion mechanism. The door leaf can be made of finger protection sandwich panels transparent panels, and it can be a combined one. It is available in all sliding systems and also with a range of versions with windows or with an inserted pedestrian door, depending on the ceiling and lintel design, and also other architectural room peculiarities. They are able to offer safety, reliability, advanced technology and personalisation.



Industrial door with pedestrian door



Industrial door with window



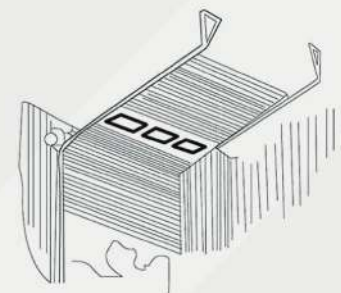
NORMAL LIFT



HIGH LIFT



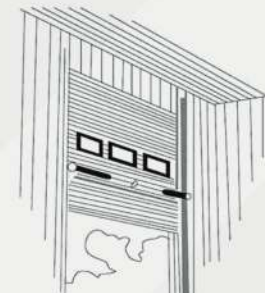
VERTICAL LIFT



NORMAL DECLINING LIFT



HIGH LIFT (MIDDLE AXIS)



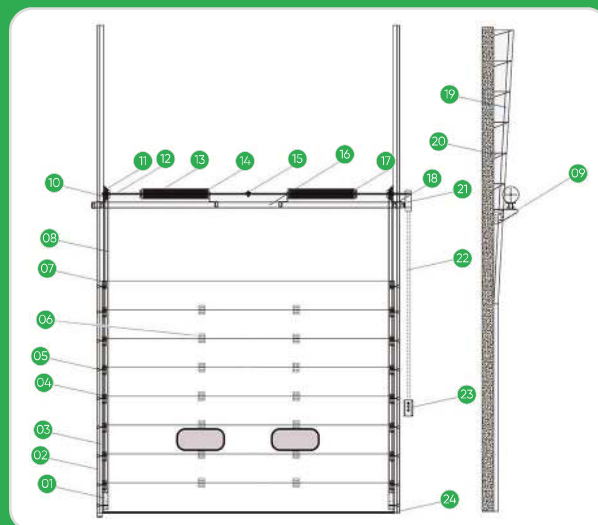
VERTICAL LIFT (MIDDLE AXIS)

It adopts the automatic production line imported from Europe to produce the non fluorine polyurethane continuous foaming polyurethane door panel. Both sides are made of 0.35 - 0.5mm thick color coated steel plate. Polyurethane and steel plate have excellent bonding, heat preservation (heat preservation coefficient  $K \leq 0.024w/m^2 \cdot ^\circ C$ ), uniform density, density  $\geq 42kg / m^3$ , working temperature ( $-20^\circ C \sim +90^\circ C$ ). The thickness of door panel is 40mm, and the height of single door panel is 500mm. Door body wind load: 50-75kg/m<sup>2</sup> (can be strengthened). Color: available in white grey (ral9010), silver grey (ral9006) or light blue (ral5015)



# Structure Drawing Of Sectional Industrial Door

- ① Bottom Bracket
- ② L Profile Support (for lower vertical Track)
- ③ 2 " Lower Vertical Track
- ④ Side Hinge
- ⑤ Roller
- ⑥ Middle Hinge
- ⑦ Steel Cable
- ⑧ Top Roller Bracket
- ⑨ Shaft Support Bracket
- ⑩ Side Bearing Bracket
- ⑪ VL Cable Drum
- ⑫ Solid Shaft
- ⑬ Torsion Spring
- ⑭ Spring Anti-break
- ⑮ Shaft Coupler
- ⑯ Middle Axle
- ⑰ Spring Cones
- ⑱ Holding Bracket
- ⑲ 2" Upper Vertical Track
- ⑳ Upper Track Fixing Bracket
- ㉑ Shaft-drive Motor
- ㉒ Manual Chain Hoist
- ㉓ Push Button
- ㉔ Bottom Seal with Airbag Sensor



- ☒ Standard
- ☐ Optional



Control box



Installation bracket



Remote control



Alarm lamp



Universal hand chain

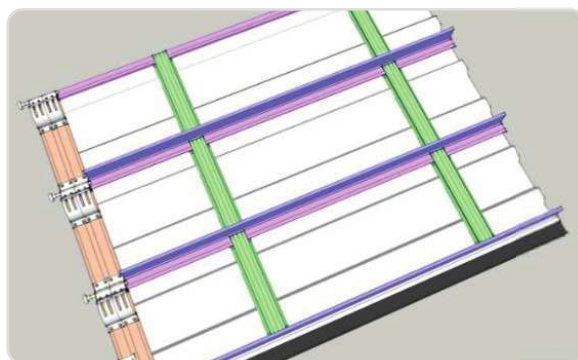


## Technical data

Max dimension	W12000mm, H8000mm
Opening and closing speed	20cm ~ 40cm/s
Power supply	220V ± 10%V, 50/60HZ or 380V ± 10%V, 50/60HZ
Door panel thickness	40mm/75mm/Back rib door
PU density	48kg/m <sup>3</sup> ± 2kg/m <sup>3</sup>
Wind resistance	Beaufort scale 10-12 (28m/s ~ 35m/s)
Sound insulation level	24dB
Insulation level	0.38W/m <sup>2</sup> °C
Water tightness	30Pa
K value	1.5W/m <sup>2</sup> +K
Thermal conductivity	≤0.033W/m <sup>2</sup> +K

## SINGLE SKINNED SECTIONAL DOOR

- ◆ Adopt numerical control pressing production line, roll forming single-layer pressing door plate continuously.
- ◆ The inner and outer plates are made of 0.6–0.7mm-thick alloy aluminum plate, and the surface is treated with two layers of electrostatic polyester baking paint. The baking paint thickness is not less than 28 microns. Guarantee color fastness for more than 15 years.
- ◆ The interior of the door panel contains aluminum alloy transverse reinforcement, vertical reinforcement and support rod.
- ◆ The thickness of door panel is 45mm, and the height of single door panel is 500mm.
- ◆ Integrated pressing and forming of door panel aluminum.
- ◆ The design of the door panel has the function of anti pinch.
- ◆ Door body wind load:  $\geq 700\text{pa}$ .
- ◆ The door panel can be equipped with oval long window. PMMA acrylic glass is used as the window, which has high acid and alkali corrosion resistance (Rockwell hardness value 89 degrees), is not easy to break, and has a light transmittance of up to 92%.
- ◆ Color: the door panel color has white gray ral9010, silver gray ral9006, light blue ral5015 and other colors customized.



### Balance system

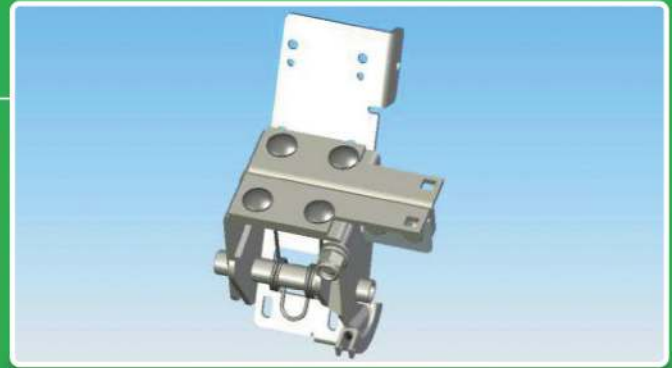
The external torsion spring is used for balance and accurate balance. In case of power failure, the door can be opened and closed manually, and the force used shall not exceed 220n (4.0m x 4.0m). The torsion spring is made of alloy steel wire 60Si2Mn, phosphated on the surface, low stress, oil tempered, and the cycle service life of the torsion spring must be more than 30000 times.



## Security configuration

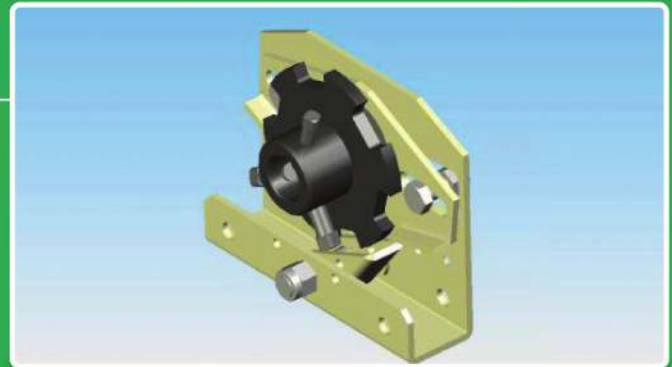
### Wire rope protection device

Wire rope protection device: if the wire rope is broken and the spring pops up the alloy knife to engage the sliding door track, the door will stop falling within 20cm of falling.



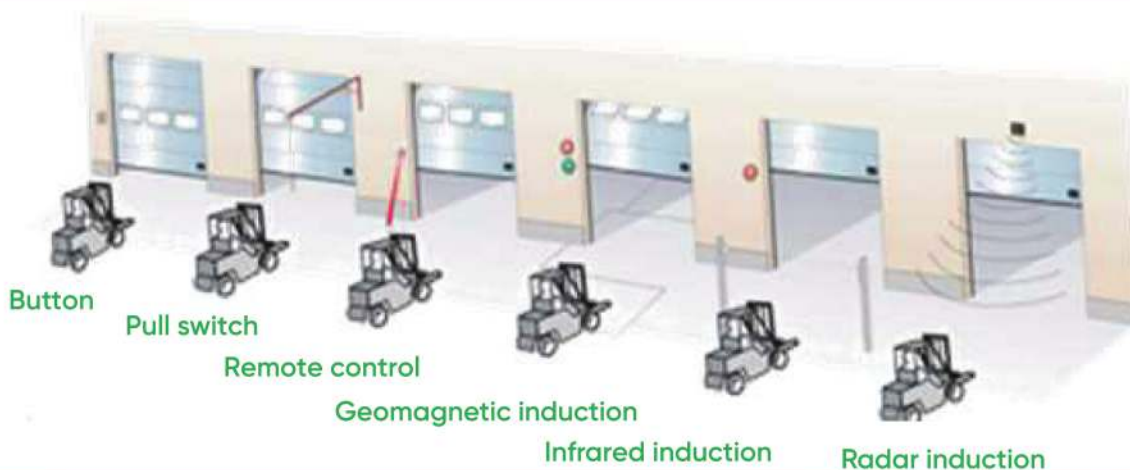
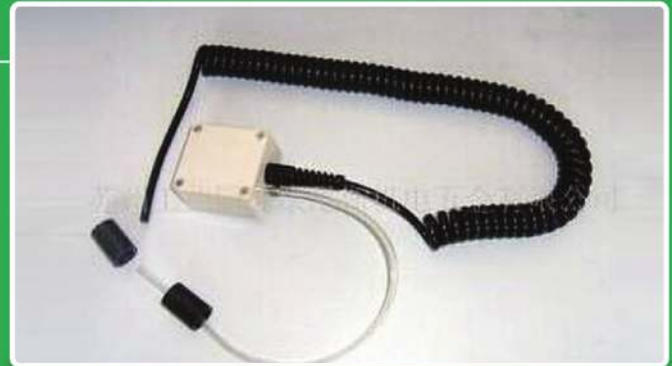
### Torsion spring protection device

Torsion spring protection device: if the torsion spring breaks, the spring pop-up bayonet will block the black wheel disc, and the door will stop within 20cm of falling.



### Air bag

Air bag: when closing the door, if someone or the vehicle contacts the air bag, the air bag compresses the gas to send a signal to the control box, so that the motor changes the direction of motion, and the door will open to the position to ensure that the person or the vehicle is not damaged.





# HIGH SPEED DOOR



## Common Features

### 1. Fast Opening And Closing

The running speed can reach 1-2m/s, 10 times as traditional roller shutter door. This obviously improves passing efficiency through it and enhances overall output.

### 2. High Frequency Operation

The operation frequency can reach more than 1000 times per day without any faults. This meets need of heavy traffic in some areas.

### 3. High-Level Automation

Automatic radar or other devices can be equipped, realizing auto control of the door. This enhances automation level and work efficiency.

### 4. Effective Insulation

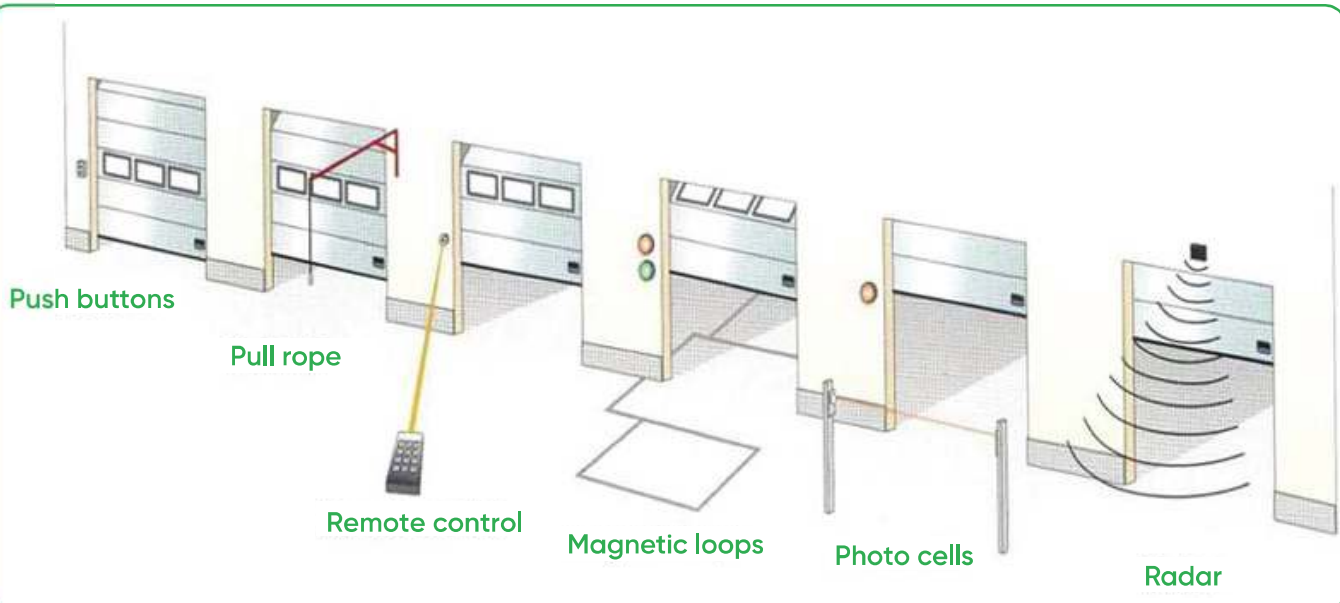
Benefiting from fast opening and closing, it can reduce the air flow between indoor and outdoor and prevent dust from entering the room. At the same time, energy is saved by reducing thermal conduction.

### 5. GMP Standard

Special design seal structure. PVC fabric is dust-proof and easy to clean.

### 6. Multiple Safety Protection

1-Safety photo sensor.  
2-Safety proximity sensor.  
3-Warning lamp.



## Servo Type High Speed Door



### Application

High efficiency, intelligence and safety. Suitable for many areas where the door's speed is required.



### Servo Control System

Its driving motor and control system are all Servo type, with better movement accuracy and quicker response. Even under very high frequency operation, the motor can keep good working condition.

### Double Encoder

Special double encoder design. In - built encoder works together with external encoder to control the running. They calibrate with each other and guarantee precise limit.

### Torque Servo System

The motor automatically adjusts its torque every time when the door runs, according to specific load condition and running speed.



### Technical data

Max dimension	6000mm wide x 6000mm high
Max opening speed	1 - 2m/s
Max closing speed	1.0m/s
Power supply	1/phase 220 ± 10%V, 50/60HZ
Protection level of electric	IP54
Available colors of fabric	Yellow, Blue, Red, Grey, White, Clear

## Zipper Type High Speed Door



### Application

This model is quite fit for food and drug factory, clean room and dust-free workshop, it fit for the area where have very strict requirement of the hygienic and cleanness indoor requirement.



### Excellent Airtightness

Special zipper design structure , connects the fabric and guide rails as a whole body, eliminating gap between them. It obviously improves overall seal performance and air tightness.



### Self Repairing

When there is a collision accident by forklift or other objects, the door will not be damaged. And it can recover automatically or semi-automatically under hand assistance. This design effectively reduces the maintenance and repair work caused by collisions.



### Soft Bottom Edge

A flexible torsion spring or rubber is adopted as bottom balance weight, instead of hard aluminum alloy profile of regular rapid doors.

### Technical data

Max opening speed	1 - 2m/s
Max dimension	5000mm wide x 5000mm high
Max closing speed	1.0m/s
Power supply	1/phase 220 ± 10%V, 50/60HZ
Protection level of electric	IP54
Available colors of fabric	Yellow, Blue, Red, Grey, White



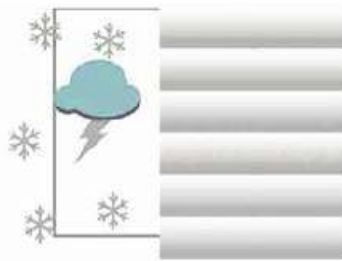
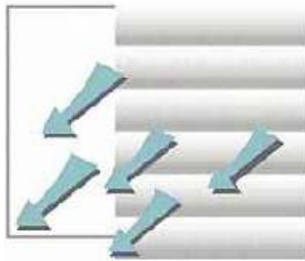
# HIGH SPEED ALUMINUM SPIRAL DOOR



**US SOLUTION** High Speed Aluminum Spiral Door is the globally unique result under innovation and creative approach to the latest technology.

The outstanding advantage of Spiral doors is Energy Saving. Since the desired temperature (warmth or cold) is maintained through the fast opening and closing speed, the heat loss stays low.

The doors achieve the incredible top speed at 2.0m/s during operation, to application to industrial site which requires to eliminate draughts keep temperature zones constant and dampen noise.



## Spiral Models

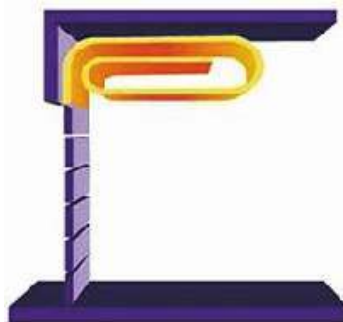
### Circular Spiral

Circular spiral is the standard and ideal solution for enough space above the door



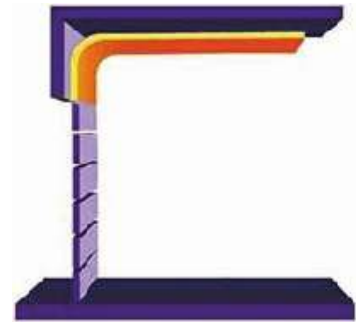
### Elliptical Spiral

Elliptical spiral is the space-saving design, applied in restricted structural conditions.

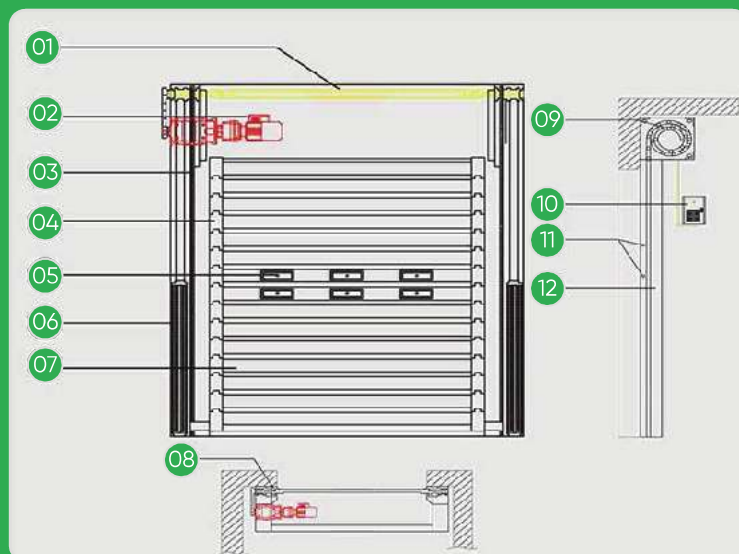


### Low header

Lower header model is widely used in underground car parking lots.



- ① Drive Shaft
- ② Motor
- ③ Drive Chain
- ④ Side Hinge
- ⑤ Vision Window
- ⑥ Extension Spring
- ⑦ Aluminum Panel
- ⑧ Rubber Seal
- ⑨ Spiral Guide
- ⑩ Control Box
- ⑪ Photo Sensor
- ⑫ Side Cover



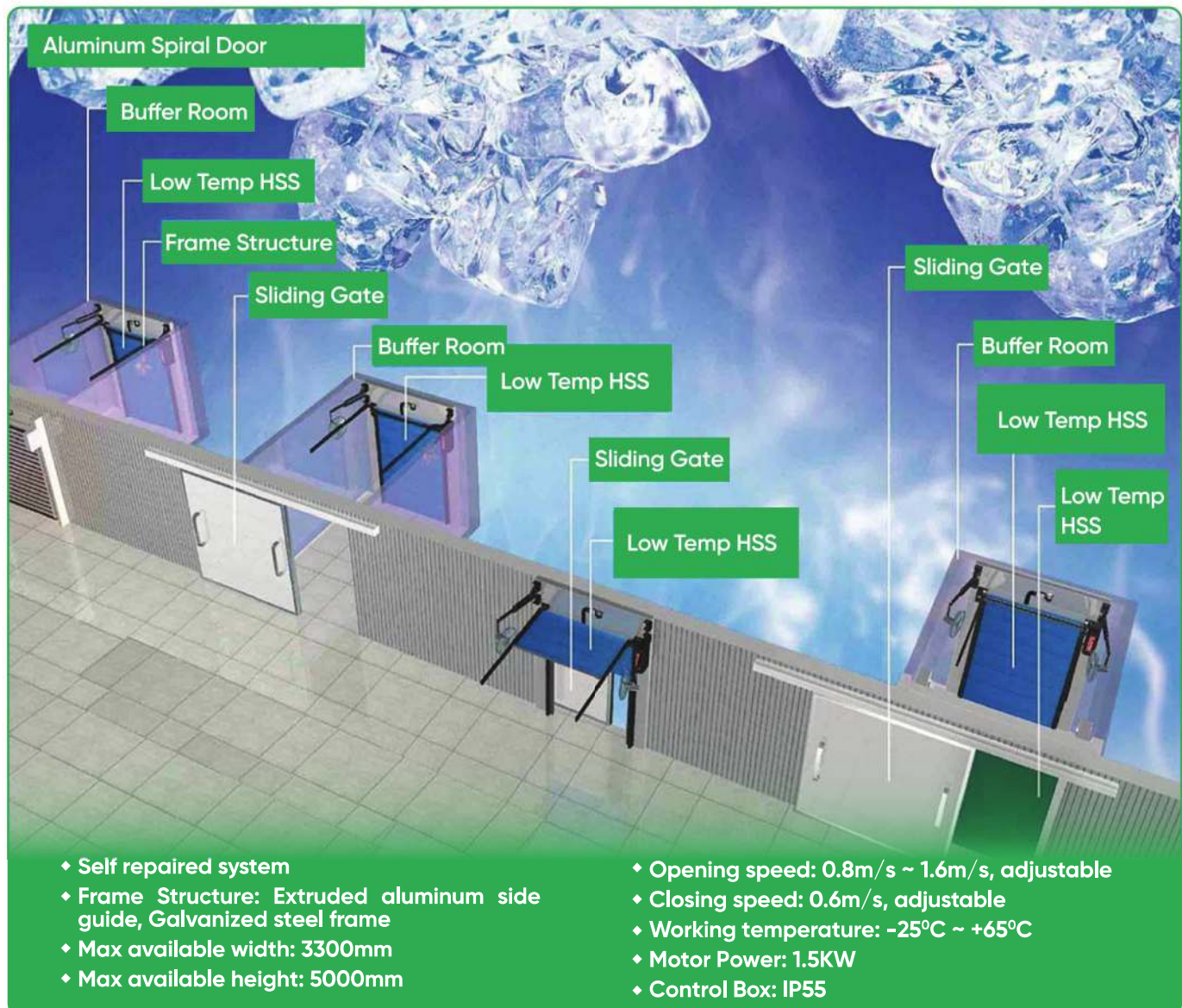
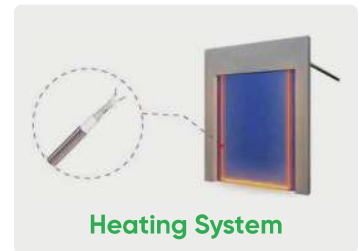
### Technical data

Max dimension	8000mm wide x 8000mm high
Max opening speed	1 - 2m/s
Max closing speed	1.0m/s
Wind resistance	Beaufort scale 10-12m/s
Power supply	1/phasse 220 ± 10%V, 50/60HZ or 3/phasse 380 ± 10%V, 50/60HZ,
Protection level of electric	IP54
Thermal conductivity factor	1.9W/(m <sup>2</sup> · K)
K-VALUE	0.4W/(m <sup>2</sup> · K)
Sound insulation factor	R=25dB
Available colors of slat	Grey, Blue, White, Aluminum, Golden

# LOW TEMPERATURE HIGH SPEED DOOR



**US SOLUTION** Low Temp High Speed Door is designed to deliver significant energy savings in cold storage applications, with operating speeds up to 2.0 m per second the fast cycle time maximizes productivity and energy savings . The advanced technology minimizes the potential for frost build-up and the need to address unwanted frost with electrical heating.





# STEEL ROLLING SHUTTER DOOR



## 1. Simply Introduction

Steel rolling shutter door is connected by the curtain in series, with high strength, good rigidity and solid structure, are suitable for large span, large area and standard factories/ logistics warehouses.

## 2. Advantage

Long service life, stable and anti-theft, wear resistance and corrosion resistance, low noise, simple and generous design...

## 3. Typical application industries

Logistics warehouse/center, manufacturing factories...

### Technical Parameter

Power Supply	220V or 380V
Motor	600kg, 800kg, 1000kg
Opening/Closing Speed	5m-7m/min
Control Method	Remote controller (optional), push button control
Door Curtain Material	Standard 1.0mm (optional 0.8mm/1.2mm/1.5mm) thickness color coated steel; other material include aluminium alloy or <b>stainless steel</b> .
Door Curtain Size	120*1.2mm, 0.8*85mm or customizable
Door Color	White/Gray
Door head and motor cover	Made in 0.7mm color coated steel plate by bending.

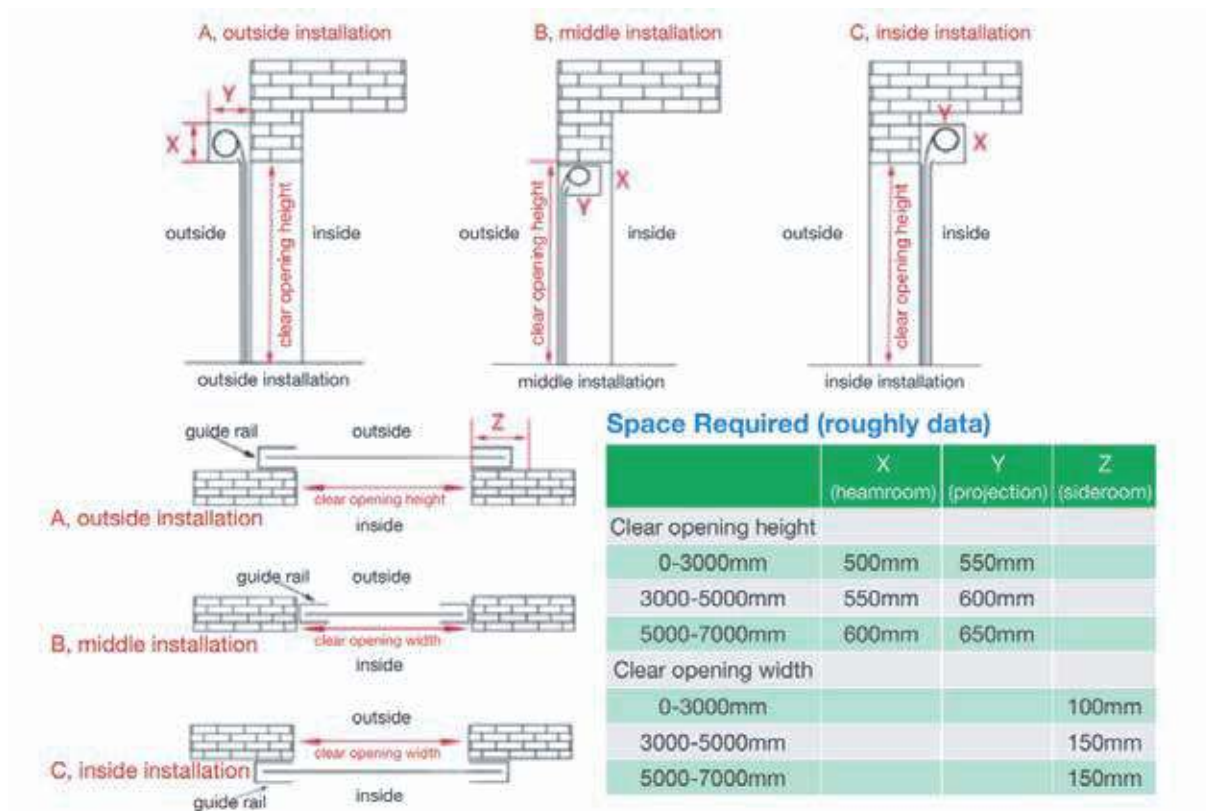


The curtain pieces are connected together, they can be rolled flexibly without tripping, abnormal noise, etc.

# INSULATED ROLLER SHUTTER DOOR



## The Construction Way





## TYPICAL PROJECTS



**Aeon Logistics**



**Hồng Hà Factory**



**Co-opmart Warehouse**



**Goertek Vina**



**Yusen Logistics**



**Ryobi Logistics**



**Matsuya Factory**



**Nutribiz Milk Factory**



## TYPICAL PROJECTS



**Maple tree Group**



**Pousung VietNam**



**Tan Hue Vien Company**



**Sai Gon 3 Jean**



**Properwell Viet Nam**



**Mekong Flour Mills**



**Nha Trang Seafood**



**Orion Vina Food**



## TYPICAL PROJECTS



**Pymepharco**



**Nanogen Pharma**



**Pouyuen Vietnam**



**Tanifood Factory**



**Zuellig Pharma**



**Sabeco Group**



**CCI Viet Nam**



**Worldon Vietnam**



## TYPICAL PROJECTS



**Intimex Group**



**Hoya Lens**



**Ansell Vina**



**Bodynits International**



**Gain Lucky Factory**



**Rals International Vietnam**



**Vital Premium Water Factory**



**Tropical Fruit Asia**





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