SCY DOOR SYSTEMS

PRODUCT BROCHURE

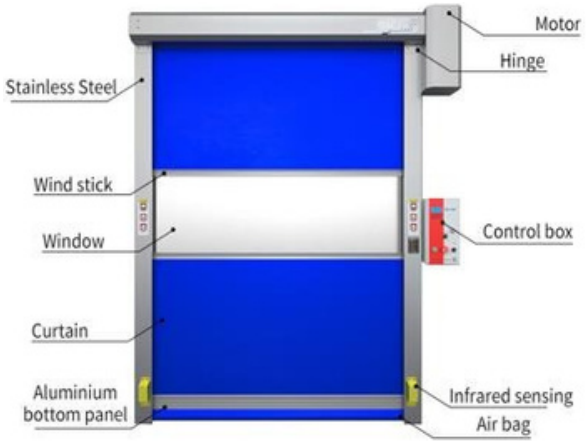
HIGH SPEED DOOR

www.scydoorsystems.com

HIGH SPEED DOOR

General

The SCY high speed door is designed for interior use in medium-sized heavy-duty operations. It protects your work environment against humidity, dust and dirt. With fast opening and closing speed, the door improves your traffic flow, provides employee comfort and saves energy.



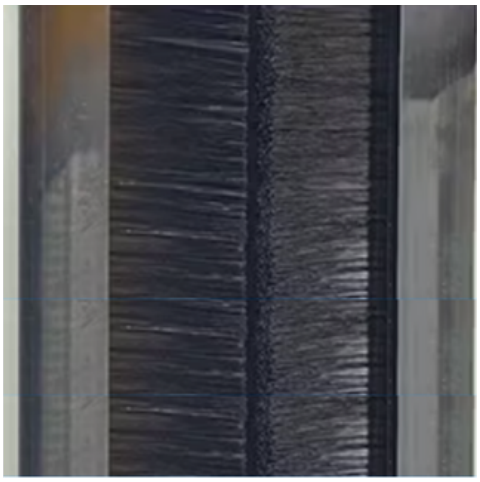
Frame

All door components, including hood and motor covers, are made of 304 stainless steel for corrosion resistance and easy cleaning, enabling high-pressure washdowns for hygiene-sensitive areas.
An optional frame heating system prevents frost buildup in low-temperature settings, ensuring a consistent seal and reliable operation.

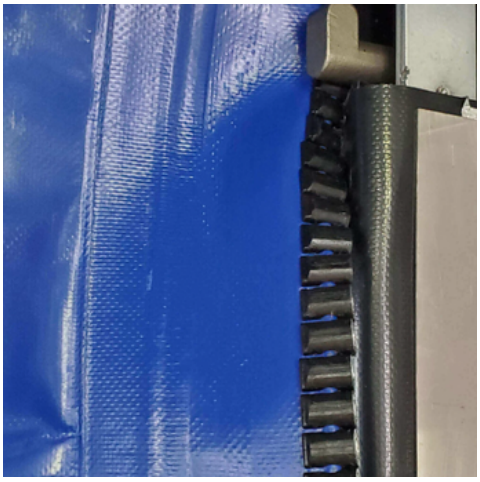
Sealing Options

The door frame offers three sealing options:

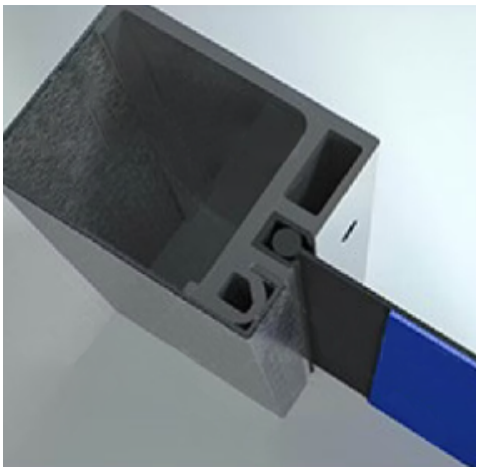
- Double-row brushes
  - Dense nylon bristles creates a four-sided airtight seal which offer excellent wear resistance
- Zipper structure
  - Minimizes temperature loss and air leakage, enhancing energy efficiency. Features self-repairing sealing for reliable performance.
- C-rail and polyethylene guide strips
  - Durable rubber buckle offers excellent sealing and wear resistance. Automatically resets after impact to reduce downtime.



Double-row brushes



Zippers



C-rail and polyethylene guide strips

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Door curtain

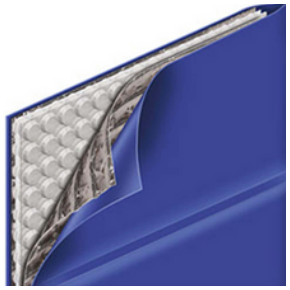
The flexible door curtain rolls compactly into the header box positioned above the opening, minimizing space usage and maintaining a streamlined appearance. The top edge of the curtain is securely attached to a reinforced fabric roll inside the header, allowing for smooth and reliable retraction during each operation.

All models are equipped with a soft PVC bottom edge to ensure good seal even with minor obstruction. Doors with zipper or C-rail seal can choose the flexible soft bottom edge which allows the curtain to bend around obstructions, reducing impact-related risks and enhancing safety in high-traffic environments.

Material

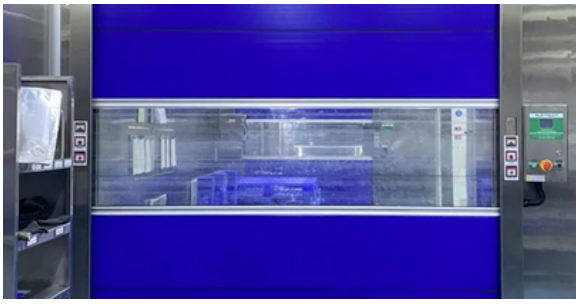
The high speed doors use a high-strength PVC curtain designed for durability, tear resistance, and reliable performance in demanding environments. Its robust construction withstands frequent operation in areas such as warehouses and cold storage facilities.

Optional multi-layer thermal insulation curtains enhance energy efficiency by reducing heat transfer and minimizing heat loss. This design also improves sealing and wind resistance, making the door suitable for temperature-controlled or high-pressure environments.



Windows

To improve natural lighting and visibility, the door curtain can be equipped with transparent windows in various sizes, arranged on a pre-defined grid. Made from impact-resistant PVC or polycarbonate, these windows enhance safety by allowing clear sight through the door, helping to prevent collisions in high-traffic areas while reducing the need for artificial lighting.



Colours

The HSD series high speed door is available in 6 standard fabric colours and customizable upon request.

Red

Orange

Blue

White

Yellow

Grey

HIGH SPEED DOOR

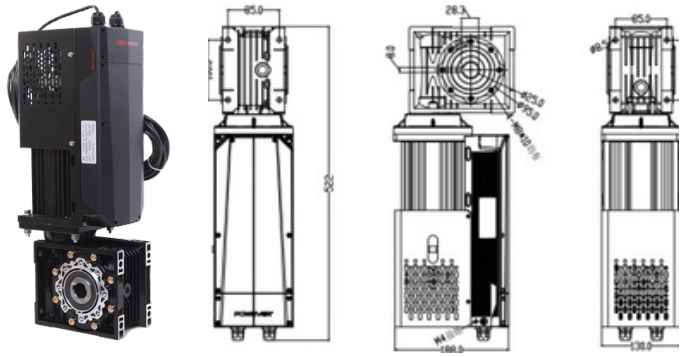
Operating system

The SCY high-speed door is fully electrically operated, ensuring consistent and efficient performance. Its operating system consists of two key components: a motorized operator and a control unit.

Operator

The operator uses a high-performance motor controlled by a frequency inverter, providing smooth, reliable operation with soft start and stop to extend motor life. It enables faster door cycles for improved efficiency.

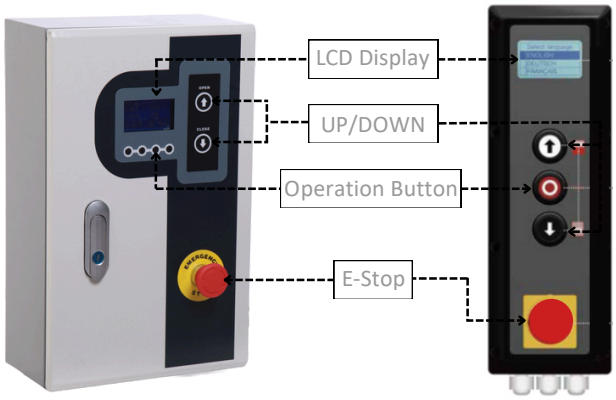
Directly connected to the fabric roll, the motor drives the door precisely. If power fails, the operator can be disengaged for manual operation via hand crank.



Enclosure	Cast Aluminum
Operating Voltage	208-240 V/1 PH
Motor Power	0.75kW / 1.5kW/ 2.2kW

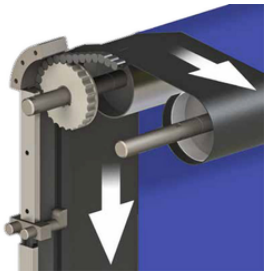
Control unit

The NEMA Type 4X-rated control unit is mounted beside the door and housed in a durable powder-coated enclosure. It includes impulse UP and DOWN buttons for standard operation, a setup button for configuration, an emergency stop mushroom button for safety.



Type A Type B

Drive system



The high-speed doors use a direct-drive system, eliminating counterweights or tension straps for a simpler design and reduced maintenance.
An optional dual-axis system is available for cold environments to help prevent frost buildup.

Safety Features

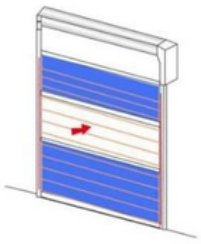
Photoelectric sensor (Standard)

Mounted on each side of the door. When a person or vehicle passes between the photocells while the door is closing, the beam is interrupted and the door opens.

Wireless edge activator (Optional)

All doors can be equipped with an edge activator. A wireless edge activator in the bottom seal detects any obstruction under a closing door and reverses the door. Installed in the bottom edge.

Light curtain (Optional)



A set of a photocell transmitter and receiver is installed in the door opening. If the photocell beam is interrupted during closing, the door will stop in less than 30 mm and reverse to the fully open position.

Warning light (Optional)

A red warning light on each side gives information on the door's current status. Lights will flash seconds before and during door movement. These are Installed on the inside and outside wall beside the door.

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Actuation Options

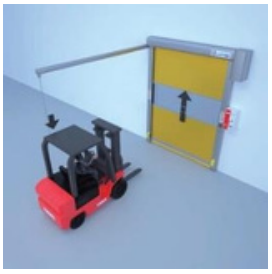
External push button (Standard)

An additional button mounted on the interior or exterior wall near the door, used when the main control unit is installed further away. Often paired with a reduced opening function for energy efficiency or limited access.

Radar

A sensor mounted above the door detects people or vehicles within range and automatically opens the door. Ideal for frequent vehicle or pedestrian traffic, it's often paired with automatic closing. Installed on the interior or exterior wall above the door.

Pull-rope switch



A pull-rope switch mounted above the door opening allows the door to be operated from a vehicle such as a forklift. Pulling the rope sends an open command to the door. Typically installed on the interior structure above the doorway.

Available Options:

- 5 m cord
- 3 m bracket: galvanized, painted, or stainless steel

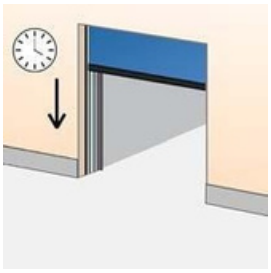
Interlocking

Two or more high speed doors are connected through interlocking wiring, preventing them from being opened simultaneously. One door can only open when the other is fully closed, ensuring the room remains sealed at all times.

Remote control

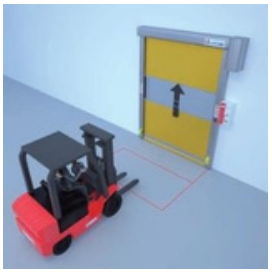
A handheld radio transmitter allows the door to be operated remotely from any location up to 100 m of the receiver and antenna installed at the door. For safe closing, the system can be equipped with a photocell beam to detect obstacles.

Automatic closing (Standard)



The door closes automatically after a programmable delay, which starts either when the door is fully open or when someone passes through. Manual closing is possible using a switch on the control unit. The delay time is adjustable using the control unit.

Magnetic loop



A floor-embedded sensor detects metal objects like forklifts or pallet trucks and automatically opens the door. Ideal for frequent vehicle traffic, it can be installed inside, outside, or on both sides of the door.

HIGH SPEED DOOR

	Industrial High Speed Door **Model HSD100**	High Speed Cooler Door **Model HSD101**	High Speed Freezer Door **Model HSD102**	High Speed Cleanroom Door **Model HSD200**
				
Features	**Imperial**			
Max Size Range (W x H)*	19' x 19'	16' x 16'	16' x 16'	16' x 16'
Curtain Temperature Rating	28°F to 104°F	14°F to 104°F	−20.2°F to 104°F	28°F to 104°F
Required Headroom	2'	2'	3'	2'
Opening Speed	Up to 5 ft/s	Up to 5 ft/s	Up to 5 ft/s	Up to 6.6 ft/s
Closing Speed	Up to 2.6 ft/s	Up to 2.6 ft/s	Up to 2.6 ft/s	Up to 2.6 ft/s
Thermal Resistance (R-value)	N/A	2.27 ft^2 x°F x hr/BTU	3.41 ft^2 x°F x hr/BTU	N/A
Resistance to Wind Load (Max per Door Width)	Class 1: 6.27 psf	Class 1: 6.27 psf	Class 1: 6.27 psf	Class 1: 6.27 psf
Water Penetration	Class 3: >1.04 psf	Class 3: >1.04 psf	Class 3: >1.04 psf	Class 3: 1.04 psf
Air Permeability (at 50 Pa)	N/A	Class 2: 0.656 cfm/ft^2	Class 2: 0.656 cfm/ft^2	Class 2: 0.656 cfm/ft^2
Curtain Material	PVC fabric	Reinforced vinyl exterior layers, dual reflective foil layer	Reinforced vinyl exterior layers, dual reflective foil layers	PVC fabric
Curtain Thickness	0.05"	0.2"	0.4"	0.1"
Window Option	Available	N/A	N/A	Available
Sealing	Brush	Brush or Zipper	Zipper	C-rail
Drive System	Single axis	Single axis	Dual axis	Single axis
Frame Option	N/A	N/A	Heated system available	N/A
Cycleability/Maintenance	Unlimited per day / Inspection every three months	Unlimited per day / Inspection every three months	Unlimited per day / Inspection every three months	Unlimited per day / Inspection every three months
Manufacturer Warranty	5-Year Limited on motor and gearbox 2-Year Limited on all other components	5-Year Limited on motor and gearbox 2-Year Limited on all other components	5-Year Limited on motor and gearbox 2-Year Limited on all other components	5-Year Limited on drive motor and gearbox. 2-Year Limited on all other components

* Customized options may be available on request

HIGH SPEED DOOR

	Industrial High Speed Door **Model HSD100**	High Speed Cooler Door **Model HSD101**	High Speed Freezer Door **Model HSD102**	High Speed Cleanroom Door **Model HSD200**
				
Features	**Metric**			
Max Size Range (W x H)*	6 m x 6 m	5 m x 5 m	5 m x 5 m	5 m x 5 m
Curtain Temperature Rating	-2°C to +40°C	-10°C to +40°C	-29°C to +40°C	-2°C to +40°C
Required Headroom	0.6 m	0.6 m	0.9 m	0.6 m
Opening Speed	Up to 1.5 m/s	Up to 1.5 m/s	Up to 1.5 m/s	Up to 2 m/s
Closing Speed	Up to 0.8 m/s	Up to 0.8 m/s	Up to 0.8 m/s	Up to 0.8 m/s
Thermal Resistance (R-value)	N/A	0.40 m^2·K/W	0.60 m^2·K/W	N/A
Resistance to Wind Load (Max per Door Width)	Class 1: 300 Pa	Class 1: 300 Pa	Class 1: 300 Pa	Class 1: 300 Pa
Water Penetration	Class 3: >50 Pa	Class 3: >50 Pa	Class 3: >50 Pa	Class 3: >50 Pa
Air Permeability (at 50 Pa)	N/A	Class 2: 12 $m^3/m^2/h$	Class 2: 12 $m^3/m^2/h$	Class 2: 12 $m^3/m^2/h$
Curtain material	PVC fabric	Reinforced vinyl exterior layers, dual reflective foil layer	Reinforced vinyl exterior layers, dual reflective foil layers	PVC fabric
Curtain thickness	up to 2 mm	5 mm	10 mm	2.5 mm
Window Option	Available	N/A	N/A	Available
Sealing	Brush	Brush or Zipper	Zipper	C-rail
Drive System	Single axis	Single axis	Dual axis	Single axis
Frame Option	N/A	Heated system available	Heated system available	N/A
Cycleability/Maintenance	Unlimited per day / Inspection every three months	Unlimited per day / Inspection every three months	Unlimited per day / Inspection every three months	Unlimited per day / Inspection every three months
Manufacturer Warranty	5-Year Limited on motor and gearbox 2-Year Limited on all other components	5-Year Limited on motor and gearbox 2-Year Limited on all other components	5-Year Limited on motor and gearbox 2-Year Limited on all other components	5-Year Limited on drive motor and gearbox. 2-Year Limited on all other components

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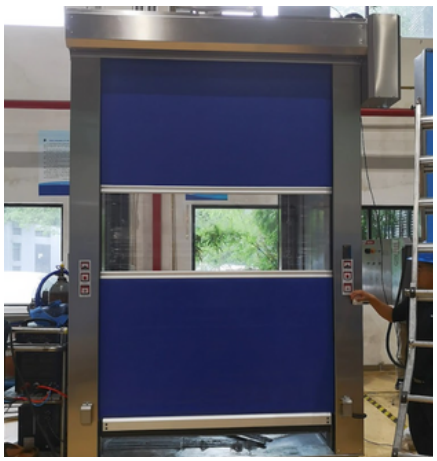
CASE PRESENTATION

Industrial High Speed Door HSD100



CASE PRESENTATION

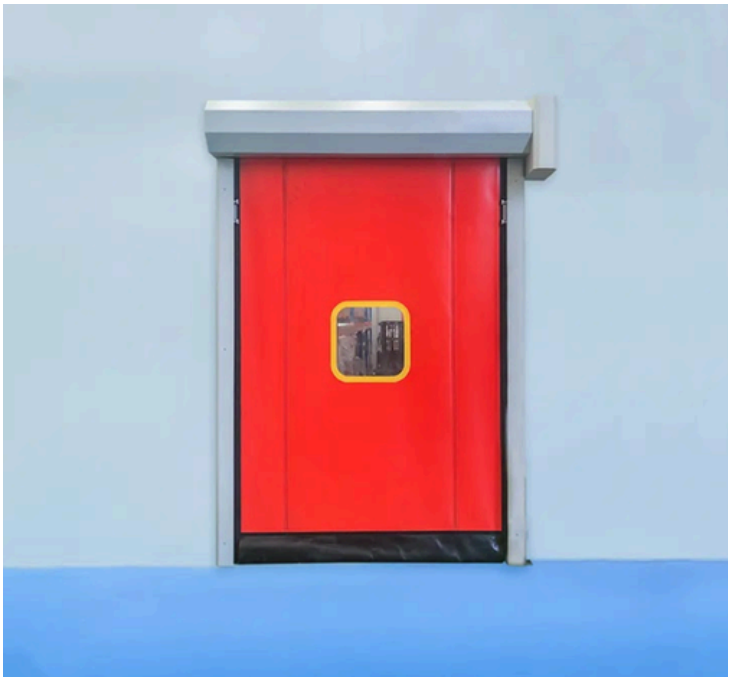
High Speed Cooler Door HSD101

CASE PRESENTATION

High Speed Freezer Door HSD102

CASE PRESENTATION

High Speed Cleanroom Door HSD200



MAINTENANCE GUIDELINE

Note:

This manual provides essential maintenance guidance for SCY high-speed doors. Following these procedures will help ensure optimal performance and prolong the product's service life.

1.Cleaning

- To maintain appearance and functionality, clean the door surfaces regularly. Use a soft, dry cloth to remove dust, dirt, and debris from the curtain, frame, and control panel. Avoid harsh chemicals or abrasive materials, as they may damage the surface finish or compromise sealing performance. Cleaning is recommended at least once a month, or more frequently in dusty or high-traffic environments.

2. Periodic Inspection

- Perform regular checks of the door's mechanical and safety components:
  - Inspect sensors, side frames, curtain guides and the bottom edge for wear or damage.
  - Check the mounting bolts, brackets, and support structures for tightness and integrity.
- Repairs or replacements should be made promptly if any damage or instability is found. Inspections are recommended every 3 to 6 months, depending on usage intensity.

3. Others

- Complimentary accessories are available throughout the warranty period

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