

High speed roll-up doors for automated intralogistic applications

ASSA ABLOY
Entrance Systems

Experience a safer
and more open world



Solutions for every area of your warehouse

More and more warehouses and distribution centers are deploying automated technology. With developments in technology, increasingly companies are choosing to automate part or all of their intralogistics processes with the goal to improve productivity, reduce errors, increase customer satisfaction and minimize costs.

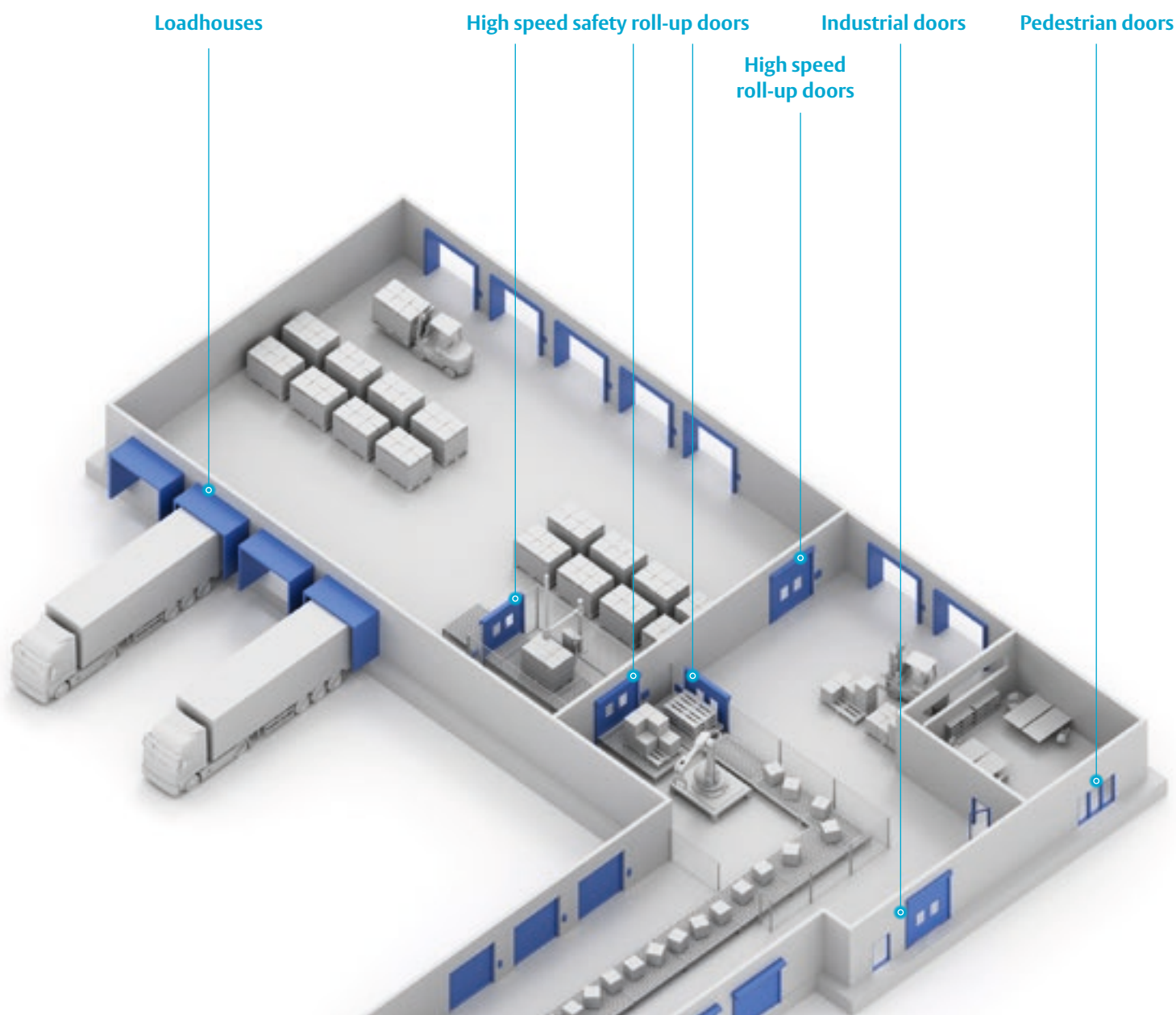
ASSA ABLOY supplies the complete automated door solution for every aspect of your warehouse and distribution center. ASSA ABLOY offers safety solutions for industrial doors to protect pedestrians.

Machine protection doors provide:

- Increased operator safety
- Protection from flying hazards
- Reduced risk of operator injury
- Optimized use of space
- Easy integration into control systems of automated machinery
- Easy integration with conveyor systems
- Easy access for inspections

Main application areas:

- Automated warehouse
- End of line automation
- Automated pallet stations
- Pallet elevator
- Wrapping machines
- Palletizing systems



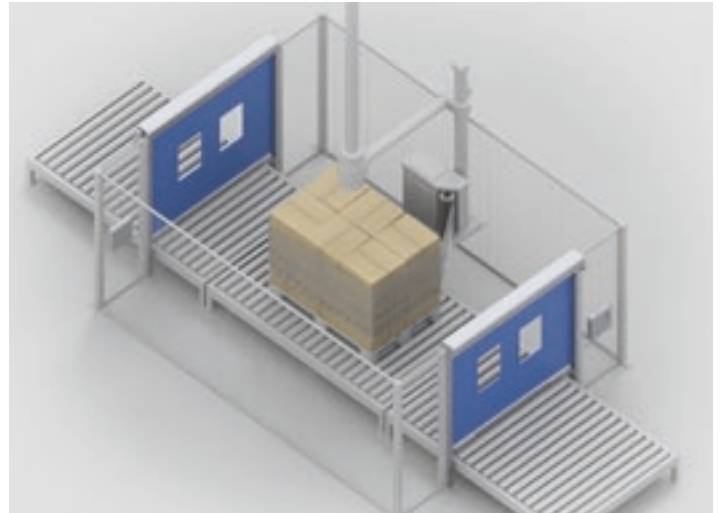
A safe environment

Automation increases the safety of warehouses and distribution centers. Through shared space between people and machinery there is a higher potential for danger. Therefore it is important to protect workers while limiting process interruptions. This results in cost savings due to minimal downtime.

The speed at which a business can fulfill an order is one of the most important metric of running a successful business.

Automatic and semi-automatic stretch wrappers

They can improve process efficiency and can remove some of the risks inherent in wrapping loads manually. However, machinery can pose a safety risk to users (eg.: Workers being struck by moving parts of the machine). Any machine can introduce their own safety hazards.



Conveyor systems

Conveyors are essential to optimize material flow, but can cause serious injuries (eg.: broken bones, finger lacerations etc.) as there are many pinch-points within this machinery.

Conveyor injuries are also costly for the warehouse operators. Safeguarding them protects both employees and companies.



Pallet elevators

Pallet elevators provide the ability to transfer single/double (empty/loaded) pallets between floors.

They can cause serious injuries (eg.: operators fall) to people working near elevators shafts.





State-of-the-art physical safety

Our solutions to prevent injuries

ASSA ABLOY **Machine Protection Safety** high speed doors can be an alternative to light curtains, laser scanners and manual doors as they can:

- Be placed closer to the machinery, saving space in the facility leading to a greater material flow efficiency
- Keep employees safe, restricting access to dangerous moving parts, containing therefore the process
- Be integrated in the existing PLC system, designed with a safety limit switch PL e, Cat. 4, SIL 3.
- Be used as anti-fall device to prevent operators from accidental falls, according to DIN 18008-4.



Our doors RP300 SERIES, RP400 and RP2000 are certified by a third party institute and comply with these standards:

EN ISO 14120

Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards

EN ISO 14119

Safety of machinery - Interlocking devices associated with guards - Principles for design and selection

EN ISO 13849

Safety of machinery - Safety-related parts of control systems

They set high industry standards with their smart design for improved automation and safety.

ASSA ABLOY RP300

Environment	Safety
DW min/max DH min/max	750 / 4000 mm 750 / 3500 mm
Speed (m/s) Opening/Closing - up to max.	2.4 m/s – 1.75 m/s
Safety limit switch PL e, cat. 4 in the side frame	✓
Curtain (available with window)	various configuration



ASSA ABLOY RP300 Wide

Environment	Safety
DW min/max DH min/max	4001 / 6000 mm 3501 / 5000 mm
Speed (m/s) Opening/Closing - up to max.	1.7 m/s – 1.1 m/s
Safety limit switch PL e, cat. 4 in the side frame	✓
Curtain (available with window)	various configuration



ASSA ABLOY RP300 USD

Environment	Safety
DW min/max DH min/max	1000 / 5500 mm 1000 / 3500 mm
Speed (m/s) Opening/Closing - up to max.	2.2 m/s – 1.5 m/s
Safety limit switch PL e, cat. 4 in the side frame	✓
Curtain (available with window)	Rolltex



ASSA ABLOY RP400

Environment	Safety
DW min/max DH min/max	750 / 4000 mm 750 / 3500 mm
Speed (m/s) Opening/Closing - up to max.	2.4 m/s – 1.7 m/s
Safety limit switch PL e, cat. 4 in the side frame	✓
Curtain (available with window)	various configuration



ASSA ABLOY RP2000

Environment	Safety
DW min/max DH min/max	600 / 3500 mm 1000 / 3000 mm
Speed (m/s) Opening/Closing - up to max.	2.0 m/s – 1.2 m/s
Safety limit switch PL e, cat. 4 in the side frame	✓
Curtain (available with window)	Aluminum lamellas anodized 100 mm height.

A controlled environment

High speed roll-up doors for cold storage

ASSA ABLOY has developed specific high speed roll-up doors for **cold storage** warehouses and distribution centers. The goal is to allow the movement of perishable goods between storage areas while maintaining temperatures in relevant areas.

High speed doors are a valuable asset in achieving this as they offer the following:

- Sustain high number of opening and closing cycles
- Grant minimal installation space requirements thanks to their vertical movement
- Ensure minimal energy loss.
- Maintain the temperature of perishable products storage areas, necessary to preserve the quality of the products.

These doors are capable of opening when required and quickly closing once the person/forklift/vehicle has passed through. With this system cold air is contained and air from the outside is minimized into the facility.



Our main solution: ASSA ABLOY HS9010PFR

ASSA ABLOY HS9010PFR is designed for **freezer environments** and offers high speed operation.

The door can be set to open automatically every 20–25 minutes to avoid build-up of ice on side guides and curtain. Heating cables in the side columns and motor help prevent ice-formation.

Short facts

Environment	Cold storage Freezer door
Size mm DW min/max DH min/max	1000 / 5500 mm 2000 / 5500 mm
Speed (m/s) Opening/Closing - up to max.	2.4 m/s – 1.2 m/s
Curtain	Insulated
Air permeability (EN 12426)	class 1 (24 m ³ /m ² /h at 50 Pa)
Thermal transmittance	6,02 W/(m ² K)



Airtight doors for intelligent fire protection

The materials and products stored in a warehouse, often closely packed together, represent an asset for companies that must be protected.

The operation of conventional fire protection systems (eg: sprinkler) can be adversely affected in storage areas. An intelligent fire protection method offers the optimum safety solution in these storage areas by reducing the oxygen amount within the space. (eg.: “Airtight door”)

For a fire to start, in addition to a strong heat source and combustible material, the amount of oxygen in the air plays a crucial role. If this is reduced by just a few percentage points, the fire risk is also reduced enormously. This method is called oxygen reduction.

ASSA ABLOY can support an **oxygen reduction system** by supplying high speed airtight doors. Fast opening and closing speed helps control air exchange and reduces contaminants.



Our main solution: ASSA ABLOY HS9020GAT
It offers perfect sealing and requires very little space. Door curtain can be equipped with windows or vision panels.

Short Facts

Environment	Oxygen Reduction Airtight door
Size mm DW min/max DH min/max	1000 / 4000 mm 2000 / 4000 mm
Speed (m/s) Opening/Closing - up to max.	2.3 m/s – 0.5 m/s
Safety limit switch PL e, cat.4 in the side frame (other configurations available upon request)	On request
Curtain	Colored PVC
Air permeability (EN 12426)	class 3, overpressure class 1, underpressure
Thermal transmittance	6,02 W/(m²K)



The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people to experience a more open world.

ASSA ABLOY
Entrance Systems

ASSA ABLOY Entrance Systems provides solutions for efficient and safe flow of goods and people. Our offering includes a wide range of automated pedestrian, industrial and residential doors, loading dock equipment, perimeter fencing and service.



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