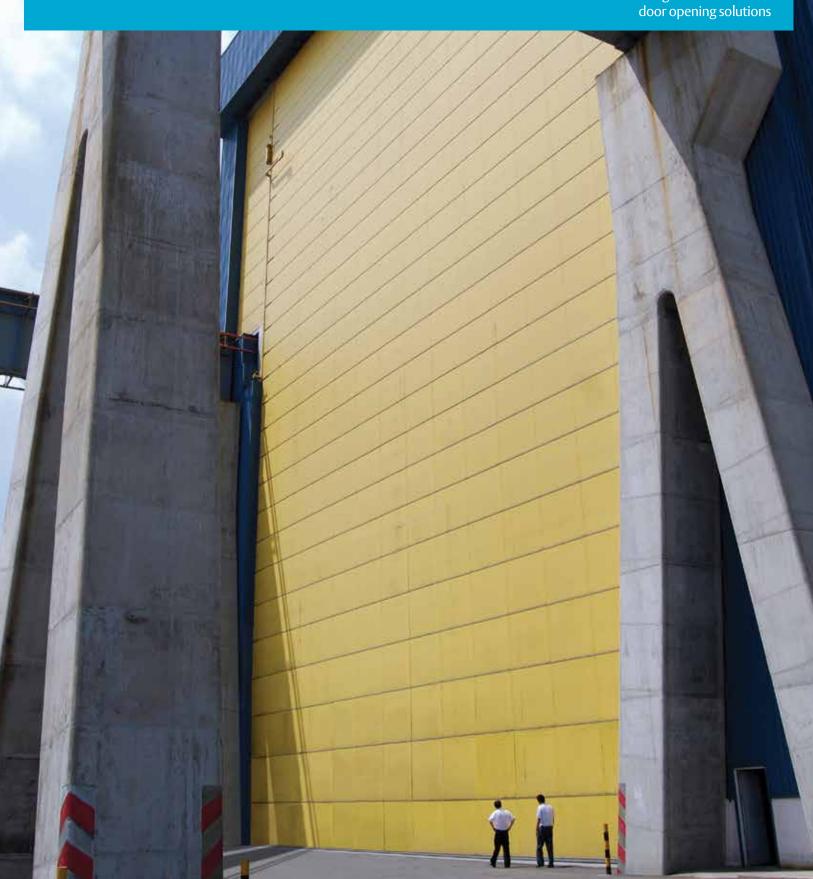
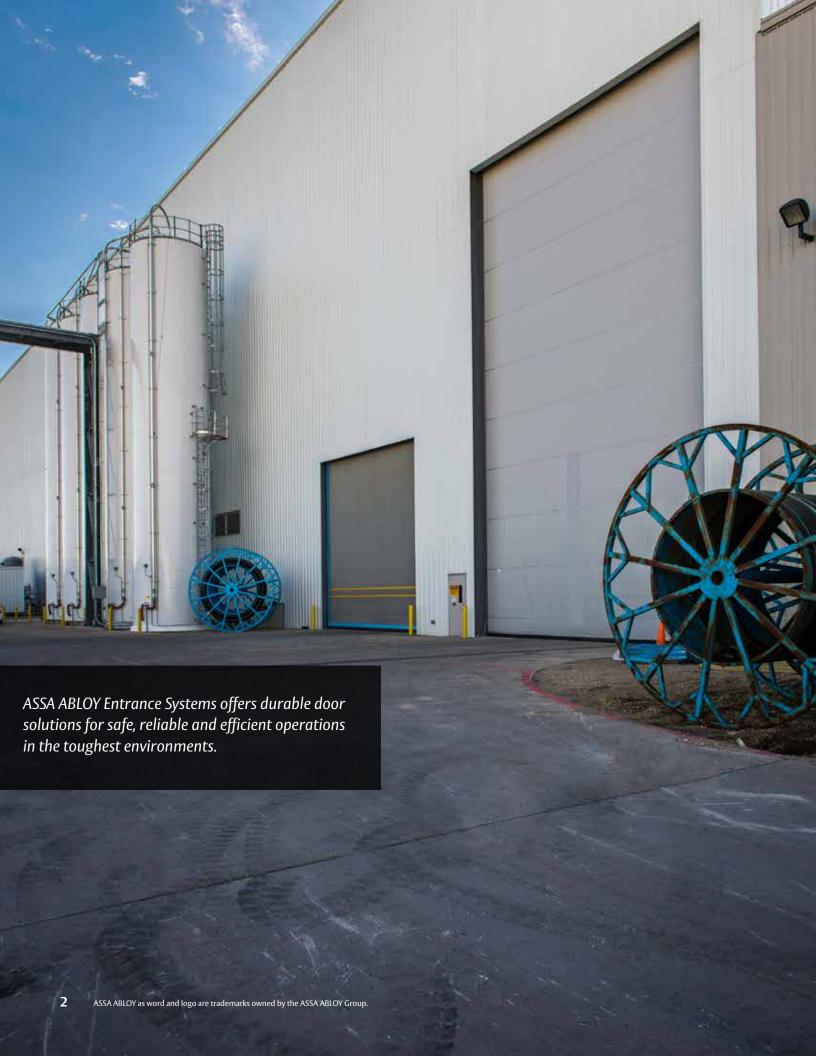
# The complete source for Heavy Industry door solutions

# ASSA ABLOY Entrance Systems

The global leader in





### Opening doors to greater efficiency

Heavy industry manufactures are continuously improving their operations, machinery, and processes to increase productivity and optimize supply chains.

ASSA ABLOY Entrance Systems offers durable and innovative heavy industrial doors built to deliver consistent operational value, increase safety, minimize risk and enhance efficiency so that you can focus on what is important – growing your business.





#### Meeting the needs of tough environments

Doors for heavy industrial workplaces need to withstand harsh conditions, such as mud, dirt, dust, moisture, corrosive and abrasive materials, high wind loads, and a wide range of temperatures. This puts great demands on the design, operation, and materials of industrial doors – demands that our durable high-performance rubber doors and vertical-lifting fabric doors are specially designed to meet.

Our rugged industrial door solutions are built to meet the requirements of heavy industry processes in mining, iron and steelmaking, automotive and heavy equipment manufacturing, waste management and recycling, and concrete and aggregate production.

Need	Solution
Reliable operation	Rugged designs stand up against high wind loads and harsh conditions
Safety	Advanced safety mechanisms protect personnel and vehicles
Flexible configurations	Specialized products for any opening size or configuration, even around existing cranes and crane rails
Environmental control	Near airtight seals protect against wind, dirt, sand, grit and hazardous contaminates
Low overall cost of ownership	Minimal maintenance requirements and durable construction ensure continuous reliability and optimal life cycle
Energy efficiency	Fast opening and closing speeds, extremely tight seals with little or no air infiltration, and optional translucent fabric for increased natural light

### High-performance rubber doors

ASSA ABLOY VR2000 high-performance rubber doors open and close fast and work around the clock to ensure a steady and safe flow of equipment, goods and people in and out of facilities. Engineered for the tough, corrosive conditions of heavy industry manufacturing, our rubber door solutions are built to:

- Protect your operations from high wind loads, contaminates, and energy losses with durable design, fast opening speeds, and reliable operations.
- Keep traffic moving with a proven door system that has a compact, heavy-duty design with minimal moving parts and an impactable rubber curtain that can take a hit.
- Improve overall productivity, reduce operating and maintenance costs, and minimize safety hazards.









Product features	Key benefits
Heavy-duty self-supporting steel construction	Structurally strong, durable, and simple to install.
Two-layer, 1/4" thick SBR rubber curtain with high-tensile strength and lifetime warranty	Works in the harshest conditions, inside and outside of facilities, with low cost of ownership.
Continuous windlok guide system	Withstands heavy windloads and provides near airtight seal.
Breakaway bottom beam	Can be easily reset after accidental impact.
Springless header and direct drives	Minimal moving parts and low maintenance costs (no springs, chains, sprockets, cables, or pulleys).
Photo eye safety system	Provides safety by reversing the door if an object is obstructing the opening.

## Machine guarding doors

ASSA ABLOY machine guarding doors save time, floor space, and construction costs while enhancing safety and increasing production. Machine guarding doors are the ideal solution for improving operator safety during automated processes by providing a barrier from automation hazards such as robot strikes, arc flashes, weld spatter, noise and more. Our machine guarding door solutions feature variable frequency drives (VFDs) for high cycle operations, integrated safety switches, reversing photocells, and various communication interfaces and can also be integrated directly into the control systems of automated machinery.



### Vertical-lifting fabric doors

ASSA ABLOY Entrance Systems' vertical-lifting fabric doors have been installed in heavy industry facilities around the world for over 35 years and provide reliable and safe operation. Made with a compact footprint for the largest door openings, our custom designed door systems help to:

- Improve efficiency and productivity by freeing up space for work crews, vehicles, equipment, and supplies.
- Safeguard workers and equipment with built-in safety arrestors, sophisticated controls to monitor and
  protect the envelope of the opening, and translucent material that provides increased natural light for
  better visibility.
- Provide cost savings with an energy efficient long-lasting door system that operates yearround in the toughest conditions with minimal maintenance required.









Product features	Key benefits
Versatile configuration	Can be designed for any size opening or windload.
Patented safety arrestors	Enhances safety by preventing a "free fall" condition.
Designed for extremely dirty environments	Minimizes service and maintenance needs.
No springs or counterbalance mechanisms	Low maintenance with very few moving parts and no lubrication requirements (no springs, chains, sprockets, or cables).
Translucent material	Increases natural light for safe and comfortable working conditions.
Dual layer fabric construction	Envelopes the guide rails and provides a near airtight seal with little or no air infiltration for superior energy efficiency.
Windlocks	Prevents the door system from lifting upwards in extreme wind conditions.

## Overhead crane-way doors

ASSA ABLOY Entrance Systems offers a complete overhead crane-way door system customized to suit any type of crane opening. Our vertical-lifting fabric crane-way doors are a single door system solution that allows for simple operation and is perfectly suited for critical openings and frequent usage. ASSA ABLOY craneway door systems are designed to provide a tight fit, requiring minimal space on either side of the opening.



### Proof in action

ASSA ABLOY Entrance Systems has succeeded in meeting customer challenges in a variety of heavy industry applications. Here is a sampling of our installations.

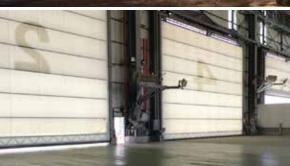












#### Iron and steelmaking

AK Steel Arcelor Mittal Charter Steel Novelis Nucor Steel Severstahl Steel Dynamics US Steel

#### **Automotive manufacturing**

BMW Fiat Chrysler Flex-N-Gate Ford GM Toyota

#### Heavy equipment manufacturing

CAT Hitachi Kenworth Trucks Komatsu Mack Peterbuilt

#### Cement and aggregate production

Cemex Lafarge-Holcim Cement Lehigh Cement Pedershaab

#### Waste management and recycling

Peconic Recycling Republic Services Veolia Waste Management

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#### Mining

Anglo American BHP Cleveland Cliffs Freeport-McMoRan Inc. Gold Corp Inc. Oyu Tolgoi Peabody Energy RG Tanna Coal Terminal Rio Tinto Sishen Mine Suncor Trapper Mining Inc.



#### Sishen Mine, South Africa

South Africa's largest iron ore mine needed safe, reliable, rugged doors for its repair facility. Mining doors from ASSA ABLOY Entrance Systems were chosen for their ability to handle tough conditions.



#### FlexSteel, United States

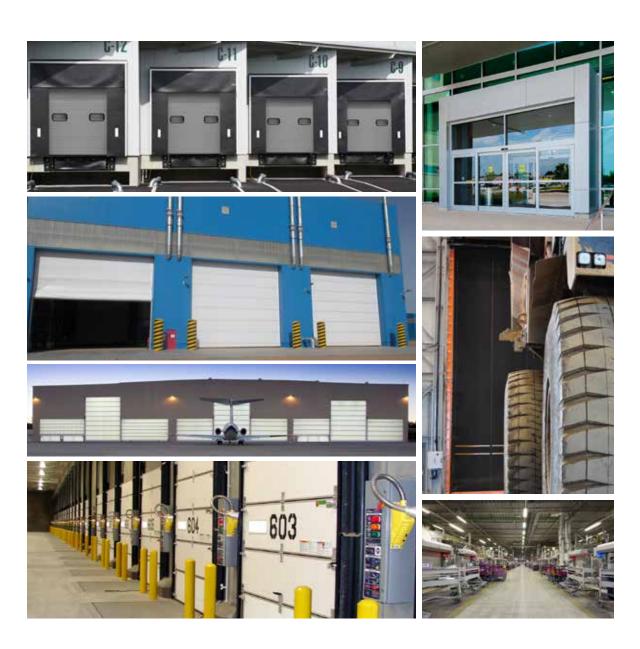
ASSA ABLOY Entrance Systems provided a vertical-lifting fabric door and high-performance rubber door to meet the facility's large size requirements and stand up to the extreme weather.

### Opening doors to business and life

Automatic entrances connect people, goods, vehicles and places swiftly and efficiently. We enhance flow and convenience in your business, by creating automatic entrance solutions for the front, back and interior of your building.

#### One point of entry for all your entrance needs

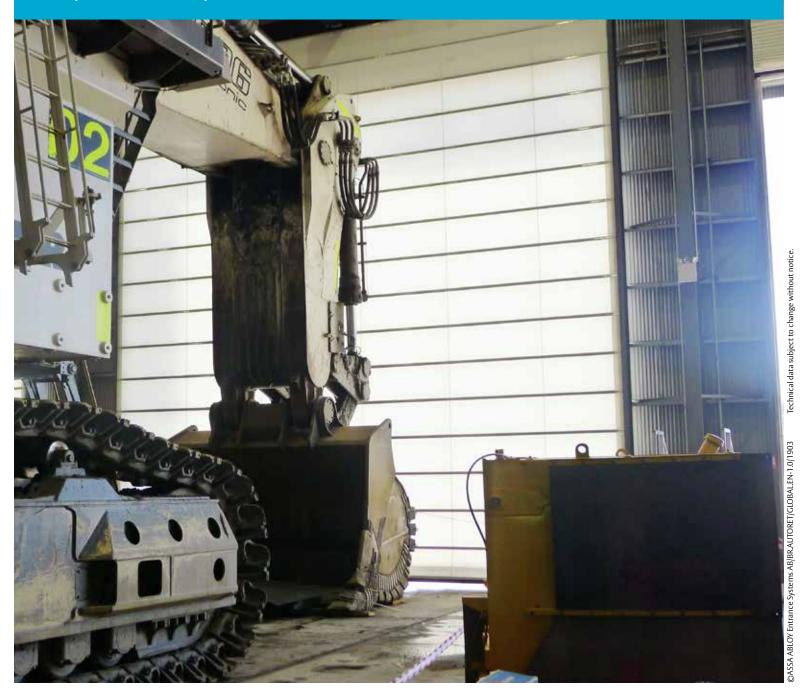
ASSA ABLOY Entrance Systems offers a comprehensive range of automatic entrance products and services, allowing you to rely on one supplier for all your door automation needs. Our services include support and advice throughout the entire building process to keep your business running smoothly.



ASSA ABLOY Entrance Systems is a leading supplier of entrance automation solutions for efficient flow of goods and people. Building on the long-term success of the Besam and Megadoor brands, we offer our solutions under the ASSA ABLOY brand. Our products and services are dedicated to satisfying end-user needs for safe, secure, convenient and sustainable operations. ASSA ABLOY Entrance Systems is a division within ASSA ABLOY.



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