Speed, Safety and Security

Ensuring High Performance for Food Processing and Distribution Facilities

RYTEC
HIGH PERFORMANCE DOORS

Contents

HIGH PERFORMANCE DOOR APPLICATIONS

Certain high-performance doors are specially designed for the food processing and distribution industry. The needs in each facility can vary, so each door may require different features and uniquely-engineered design qualities.

Whether your facility encompasses raising livestock or growing produce — or your facility is dedicated to freezing and storing that product — high performance doors have every circumstance covered.

Typical Environments For High Performance Doors:

- Meat or produce delivery and processing
- Sanitation and cleaning of product
- Preparation, sorting and quality control
- Separation of processing environments
- Automated conveyor systems
- Hazardous environments (and components) for nut and grain facilities
- Refrigerated and frozen food storage
- Blast cell deep freezers
- Warehouse storage and shipping separation
- Dock security

Proper selection of a high-performance door often requires knowledge of applicable in-force regulations.

MEETING REGULATIONS

When it comes to food processing and distribution, maintaining cleanliness and ensuring food safety are of the utmost priority. There are many factors to be considered throughout the sourcing, production and distribution process, including the selection of doors designed specifically for these industries and sanitary applications.

In particular, products which may pass through numerous openings during the processing stage must be protected from contaminants at all points. There also are different types of regulating bodies ranging from USDA, FDA, NSF and ISO, among others, that set stringent standards which must be met to ensure product safety and certification. In particular, adherence to programs such as Hazardous Analysis Critical Control Point (HACCP) and processes outlined in Standard Sanitation Operating Procedures (SSOP) and from the Food Safety and Inspection Service (FSIS) are critically important.

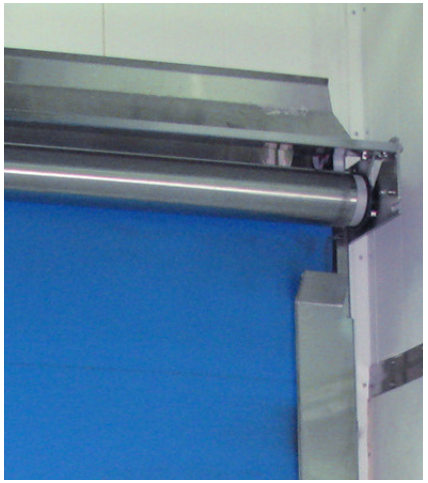
Overhead roll-up doors – and high-performance doors in particular – which are used within these facilities are no exception, and must meet these requirements while also incorporating a variety of features that help safeguard these highly-regulated environments.

COMPONENTS AND KEY FEATURES

Rotating Drum. Applications that require full wash down capability of roll-up doors need door models that are constructed for easy accessibility of all areas. A rotating drum in the head assembly of a door allows for full cleaning of the drum and the fabric where they meet, which could otherwise host dangerous bacteria over time. Models that provide a 120-degree rotation ensure full access to those areas.

Hinged Drip Guard. A hinged drip guard located on the head assembly and in front of the drum provides another feature for easy, thorough cleaning of components. The drip guard is designed to catch any contaminants and prevent them from accumulating and potentially dripping on anything passing through the door opening.

Gutter System. Some high-performance doors feature an optional bottom bar gutter system. It's specially designed to prevent liquid contaminants from accumulating on the door from humidity, then dripping into the door pathway. This not only keeps materials and product from getting contaminated but is also a safety feature to help prevent slips from moisture on the floor.



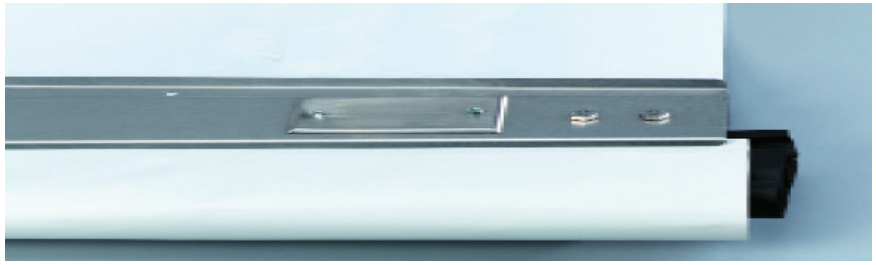
Hinged drip guard

Rotating drum

Sloped gutter system keeps contaminants out of the traffic pathway.

COMPONENTS AND KEY FEATURES

Stainless Steel Components. Stainless steel piano hinges prevent excess fabric from touching the drum when the door is closed. This also reduces bacteria build-up by eliminating tight areas where it could hide. Stainless steel side columns with removable covers allow for easy wash down of tight spots, keeping all areas sanitized on a regular basis with minimal effort. Certain models may offer 304 stainless steel standard with #4 finish or optional upgrade to 316 stainless steel finish.



Door Panel. USDA/FDA-compliant panel materials are available for high-performance doors, making them easy to clean. A 2-ply multifilament fabric that has a smooth surface is perfect for applications where cleanability is a must. It eliminates spots where contaminants can hide and build up over time.

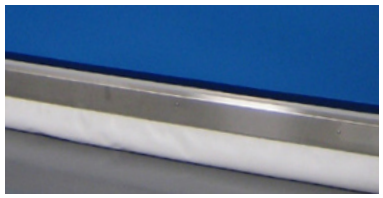
Cleanability is crucial in food processing applications.

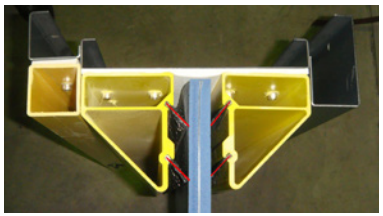
MAINTAINING EFFICIENCY

Efficiency is crucial in fast-paced food processing, distribution and warehousing facilities. Temperature, pressure and other factors may create substantial differences from one area to another and produce unique separation, sealing and security challenges as a result. High-performance doors specially engineered for these environments can keep facilities operating at maximum efficiency and sustain high productivity rates.

Tight Seals. Environmental consistency is also maintained through a variety of product features. For example, tight seals keep air flow and temperature differences consistent on either side of the doorway using full-height weatherseals that fit snugly against the door panel. A vinyl loop seal on the bottom of the panel helps form a tight seal against the floor. And finally, a top seal helps to form a full perimeter seal for the entire opening.

Speed. Fast opening and closing speeds help facilities maintain environmental control and maximize energy efficiency. When the doorway is left open for less time, less air infiltration between areas helps maintain consistent temperature, humidity and pressure conditions. Minimizing open-doorway conditions also helps save energy as well.





Reduce air infiltration with tight seals and fast opening and closing speeds.

MAINTAINING EFFICIENCY

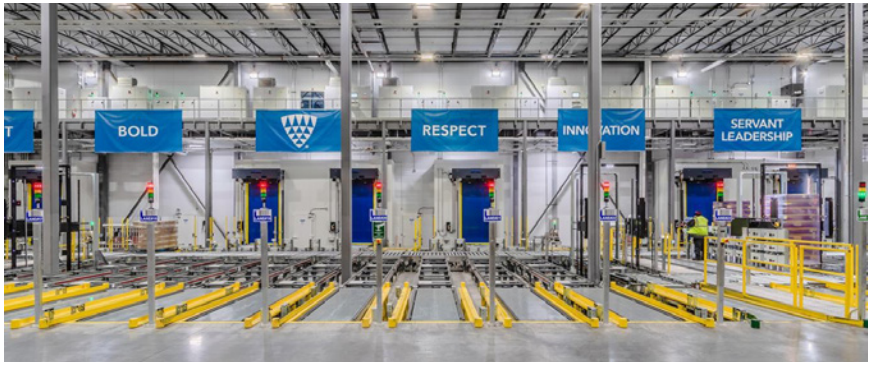
Blowers. For environments that have significant temperature differentials between adjacent areas, high-performance doors offer a variety of options to maintain conditions on both sides of the door. One popular option is heated blowers that help minimize temperature exchange while the door is open and keep the door running smoothly by preventing frost build up. Some door models feature insulated panels that provide highly-insulating R-values up to R-40. These features and insulating properties not only keep operations running smoothly but efficiently as well.

Technological Innovations. Many facilities are adopting automated systems today. The food processing and related industries are no exception and automated storage and retrieval system (ASRS) are becoming a large part of many of these facilities. Certain high-performance doors are specifically designed for non-live-traffic conveyor operations to maintain energy efficiency with minimal air infiltration — while ensuring product flows smoothly throughout all areas of the manufacturing and storage process.

SPEED AND RELIABILITY

The speed of high-performance doors is a primary factor in helping to maintain environmental conditions in a variety of different applications, while also helping to keep operations moving efficiently. In fact, many food processing and distribution facilities operate 24/7 to keep up with demand. With opening speeds up to 100 inches per second, high-performance doors move quickly so production and distribution staff can keep moving quickly as well. Contrast that with slow moving doors that cause equipment and employees to wait — wasting significant time, money and energy.

Along with speed, the reliability and durability afforded by high-performance doors play a critical role in maintaining efficient day-to-day operations. The fast door speed helps clear the door opening quickly for fast-moving equipment. If accidental collisions with a door do occur, these doors must be easily reset with minimal effort and downtime to prevent operational delays and product spoilage. High-performance doors designed with such a break-away feature can easily be reset without tools or even human intervention depending on model types, ensuring operational efficiency at full speed.



ACTIVATION OPTIONS

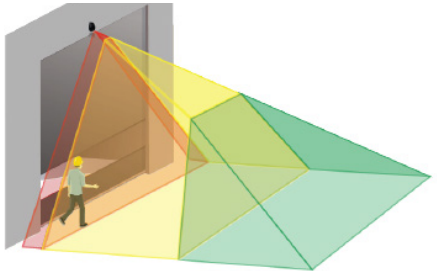
To maintain high safety standards and sanitary conditions, manual touch points must be kept to a minimum. High-performance doors used in food processing and distribution facilities are designed with these needs in mind.

Today's high-performance doors are available with a variety of high-tech, touchless activation options. The most effective of these is of course hands-free activation. The fewer opportunities employees and other workers have to touch surfaces the less likely the chance for the spread of viruses, germs and other contaminants.

These options can be matched with a facility's unique environmental and regulatory needs.

Common Hands-Free Activation Options:

- Wave-to-open — great for small equipment and foot traffic applications and only requires a person to wave their hand in front of, but not touch, a sensor
- Motion detector and presence sensors automatically recognize when there is movement approaching the door and open the door automatically
- Enhanced multi-functional devices provide even more flexibility that can be programmed to perform various actions, depending on the type of movement in different areas around the door



SIZE AND CLEARANCE

It is important to know and understand the door size requirements and related clearances required when planning for a new or replacement high-speed door for your project. With many different types of environments, ranging from new construction to renovation or replacement situations, every effort should be made to accommodate the specific application with a properly fitted high-speed door.

When considering doors within food processing or distribution applications, take into account the maximum sizes available for each door type as well as available options. In addition, some models may require more space if they have optional heater or blower systems added. In other cases, additional wall space may be required if selecting sliding doors vs. roll-up doors.

Measure and record all critical dimensions.

Typical Size Considerations:

- Door opening size
- Headroom above lintel
- Head projection
- Side column projection
- Side column width

SAFETY FEATURES

Multiple Safeguards. High-performance food processing cold storage doors offer a full array of safety features to protect people and equipment and maintain operational standards.

Protect People and Assets. Maintaining temperatures and cleanliness regulations are of utmost priority in the food processing and distribution industry; safety in the workplace is also of equal concern. While well-known for high performance and high speed, these doors are also designed to ensure safe operation and safer operating environments for people and plant-floor vehicles.

Typical Safety Features:

- Door activation/motion sensors
- Flexible bottom edge
- Break-away bottom bar
- Safety light systems
- Reversing bottom edge
- Photo eyes

Flexible Bottom Edge

Break-Away Bottom Bar

Safety Light System

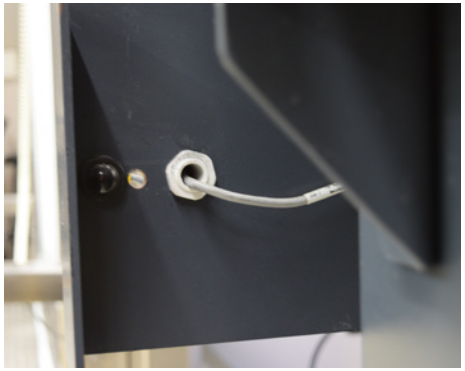


Photo Eyes

Protect staff, product, and equipment.

Rytec introduced the first high-speed folding door for food and cold storage operations over 35 years ago.

Many Rytec Fast-Fold® doors are still in operation today with millions of operational cycles.

LASTING RELIABILITY

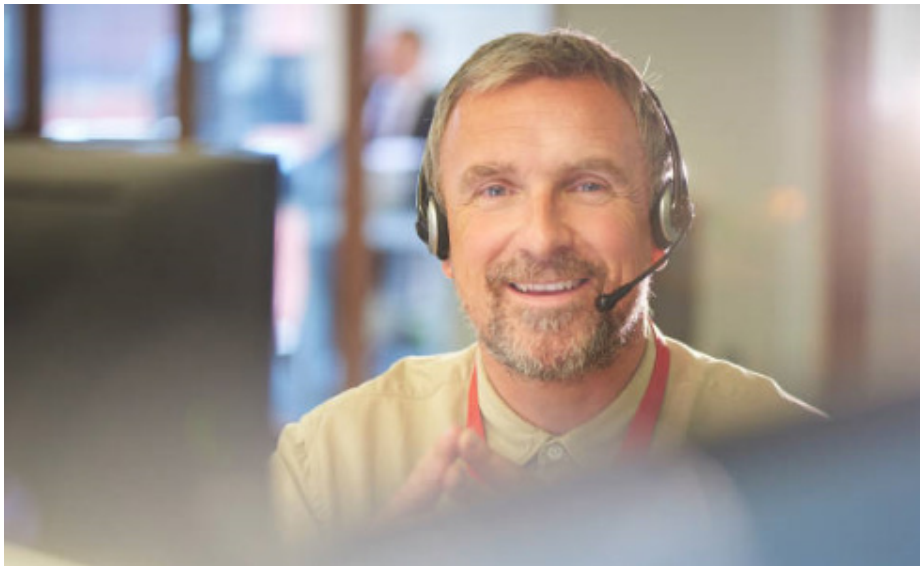
Longer Operating Life. Engineered to withstand the daily rigors of continued use, high-performance doors are built to last for countless operating cycles even in the most rigorous conditions, day in and day out. This is important for 24/7 facilities where reliability is a must. If a door goes down, it can severely impact a facility's workflow and production.

Perfect Fit. Custom manufactured to specifications, high-performance doors assure optimal fit and performance to keep product and operations moving smoothly. Low-profile models are available for tight areas.

Specialized Function. Engineered to control different types of environments, high-performance doors offer specialized solutions for food processing and distribution applications from automated storage and retrieval systems, to processing areas and refrigerated and freezer environments.

Specialized Solutions:

- Perishable seasonal products
- Food processing and handling facilities
- Temperature controlled environments
- Refrigerated cooler and freezer storage
- Automated and conveyor systems



We have dedicated sales staff assigned to each region, and a large network of dealers across North America to better serve our customers.

RYTEC HIGH PERFORMANCE DOORS

CHECKLIST:

Please provide us with the following information to ensure you receive the most accurate advice.

- Placement in facility
- Traffic/environment needs
- Estimated number of cycles per day
- Activation needs
- Temperature on both sides of opening
- Size of door opening
- Surrounding clearances required
- Low/high pressure considerations

CONTACTING RYTEC

Each door application may have unique requirements. We recommend contacting a sales specialist to verify your specific needs. This will help to ensure you receive an accurate quote. Call 888.467.9832 or email us at info@rytecdoors.com.

RYTEC HIGH PERFORMANCE DOORS

SEE THE FULL LINE OF DOORS FOR FOOD PROCESSING & DISTRIBUTION ENVIRONMENTS

Rytec is North America's leading independent manufacturer of high-speed, high-performance doors. For over 35 years our focus has been exclusively on design, innovation and manufacturing of high-performance doors. Market-leading companies across a variety of industries trust and rely on Rytec for outstanding quality, performance and reliability.

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RytecDoors.com
888-GO-RYTEC
info@rytecdoors.com
P: 262.677.9046 F: 262.677.2058
One Cedar Parkway, PO Box 403
Jackson, WI 53037-0403

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