Protect your people, profits and products

Rite-Hite Safety Barrier Systems

RITE-HITE®
ALWAYS LOOKING AHEAD

The science of safety

Industrial facilities are inherently dangerous and use a variety of barriers to protect people, products and property.

In some instances, these barriers may simply separate pedestrian traffic from other internal vehicle traffic. In other facilities, barriers may be employed to keep people away from automated processes and machinery or to protect employees against falls.

Barriers may also be used to protect production equipment and/or the building itself from vehicle damage. In all cases, barriers play an important role in helping facilities operate safely and efficiently. An appropriate safety barrier should be selected after evaluating the application criteria.

Barrier rating methodology

Rite-Hite® has developed a test methodology to quantify specific application variables and determine barrier ratings in terms of total kinetic energy absorption, instead of a specific weight and speed.

It is centered on the formula for kinetic energy ($KE = 1/2mv^2$, where m = mass [weight] and v = velocity [speed]). Expressing the impact rating in terms of energy allows the user to understand the effects of various speeds and weights. It also helps determine a more appropriate barrier based on the application than would be possible with a single speed and weight rating.

The chart below (Fig. A) separates the barrier's impact rating into three different areas. The green area shows testing where the barrier wasn't damaged and it is capable of being impacted again. The yellow area shows where the barrier stopped the impact load, but would possibly need repair or replacement. The red area shows where the impact energy exceeds the barrier's maximum rating. In these cases, the impact cannot be fully absorbed and the barrier would not be able to stop the load – indicating that this barrier should not be used for this application.

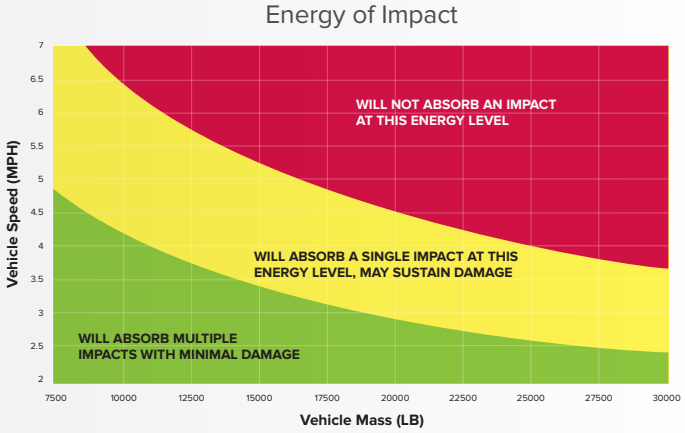
The bottom line

Installing safety barriers is a cost effective, yet important investment that can help prevent accidents, injuries and damage to products or equipment. Before selecting barriers to invest in, it is important to consider all of the application requirements. Once these site specific variables are determined and understood, a user can select the best barrier(s) to meet their safety and protection needs.

BLAST – Putting safety to the test

Each Rite-Hite Barrier Safety product is BLAST* tested at various speeds and weights. Then each product is given an impact rating to help match the requirements of any application.

By subjecting our designs to controlled, repeatable testing, we can offer sound science that backs up the solutions we offer. That's the science of safety.



*Barrier Load and Speed Test.

Fig. A

Considerations

There are several considerations facility managers should keep in mind when considering safety barrier applications:

- What are the maximum gross loads and speeds of the material handling equipment expected to impact the barriers?
- Is there sufficient space to allow the barrier to sustain maximum deflection when impacted?
- Is repair or replacement acceptable after a barrier impact creates permanent deformation?
- Are barriers permanently installed or do they need to be removed on a regular basis?

Many manufacturers rate industrial barriers based on their ability to stop an impact of 10,000 lbs. at 4 mph – which has been an industry standard for more than 30 years. However, while this rating provides a meaningful reference for a specific load at a specific speed, it fails to define several key variables:

- How is the barrier's performance affected when the weight of the impacting vehicle is increased?
- How is the barrier's performance affected as the impacting vehicle's speed increases?
- How severely was the barrier damaged by the impact? Is replacement necessary?
- How much did the barrier deflect during impact? Did it stop the load soon enough to prevent injury or damage?

CONSIDER THESE FACTS:

- 34,900 serious injuries per year involve a forklift and 61,800 non-serious injuries per year involve a forklift. – OSHA
- Workplace injuries and deaths cost society $200 billion in 2013 and a single injury can cost tens of thousands of dollars. – National Safety Council
- Falls to a lower level are the second leading cause of workplace fatalities. – National Safety Council

Ensure full-time safety at the loading dock and in the plant

Ensure safety at the loading dock

Vacant loading dock doors are a danger zone inside any facility. Accidents at these 4’ drop-offs can result in serious injury and are sometimes fatal.

Rite-Hite Barrier Systems offers several solutions to protect an open loading dock. These solutions provide full access for loading and unloading a trailer and still allow fresh air into the building when no trucks are present.

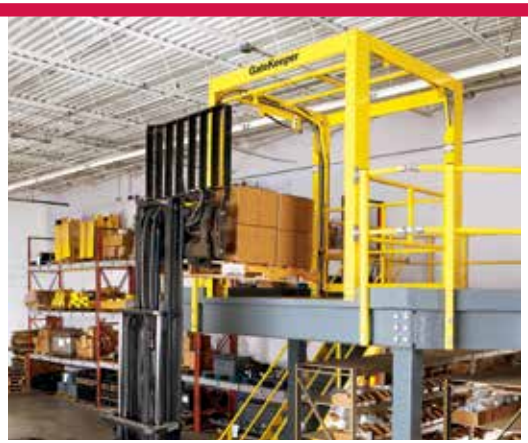
All of the loading dock solutions address OSHA regulation 1910.23 regarding “protection for wall openings and holes.”

Separation means protection in your plant

Your plant can be a dangerous place. When it comes to protection, a yellow line painted on the floor just doesn’t cut it.

Separating and defining work areas and walkways and providing drop-off protection for interior loading and rail docks has long been a challenge for facilities. The traditional yellow line is low cost and easy to change, but offers little to no protection for pedestrians against material handling equipment.

Available in steel, fabric or PVC, Rite-Hite’s In-Plant Barrier Safety Systems offer flexibility and safety for dozens of applications within a facility.



Elevated work space protection

As companies look to maximize existing space within their facilities, many are turning to mezzanines, elevated work platforms, or multi-level racking systems to create additional storage space or work areas for employees.

Loading dock safety barriers

Ensure maximum safety at the loading dock and other areas of a plant that require separation protection.

Dok-Guardian™ Safety Barrier

This heavy duty safety barrier is made of a bright red PVC-coated fiberglass mesh curtain with three bright yellow heavy-duty restraint straps, that also serve as a highly visible warning sign. It operates manually, and easily fits across openings up to 16’5” wide.

The Dok-Guardian is anchored on either side by yellow safety Rite-Hite Warden guards, which provide excellent door track protection. When loading or unloading, the safety barrier retracts into one of the Wardens.

Loading dock safety barriers

Dok-Guardian™ LD Safety Barrier

The Dok-Guardian LD barrier is ideal for a loading dock or work area where light duty material handling equipment is used. It also serves as a highly visible warning for operators and pedestrians.

Warden™ TR

Specifically designed for sectional doors, this unit provides door track protection without interfering with the door operation.

Rite-Hite Barrier Systems These products all address OSHA1910.23	Dok-Guardian	Dok-Guardian LD
Stopping power *Consult individual product BLAST chart for complete weight and speed ratings.	Curtain stops up to 30,000 lbs. multiple times with little or no damage.	Curtain stops up to 5,500 lbs. multiple times with little or no damage.
Deflection when impacted	Up to 11'5" opening: 17" Up to 16'5" opening: 30"	Up to 11'5" opening: 17" Up to 16'5" opening: 30"
Maximum clear opening width	16'5"	16'5"
Ease of removal & repositioning for access to opening	Manual operation: Less than 10 seconds, 30 lbs. of force.	Manual operation: Less than 10 seconds, 30 lbs. of force.
Special notes	Common member units and interlock options available. Wardens protect door tracks on stand-alone units.	Common member units and interlock options available. Wardens protect door tracks on stand-alone units.

Full-time safety integration

The Dok-Guardian barrier is designed to integrate with Rite-Hite's powerful Dok-Lok® system, to ensure full-time loading dock safety.

1. The red light on the Dok-Lok control box indicates that the Dok-Guardian's curtain is safely locked across the opening.

2. The Dok-Lok vehicle restraint safely secures the trailer to the loading dock.

3. When the lock button on the Dok-Lok is pressed and the inside light turns green, the Dok-Guardian curtain releases, allowing for loading and unloading of a trailer.

In-plant safety barrier systems

SpanGuard® Mesh

SpanGuard Mesh is a lightweight, high-visibility barrier that helps define and separate workspaces, and will restrict access to hazardous areas like loading docks and walkways near fork truck traffic. It can be easily removed and stored, or relocated should the plant layout change.

Rite-Hite Barrier Systems	SpanGuard Mesh	GuardRite Strap	GuardRite Flex	GuardRite Steel	GuardRite Sure-Stop	Safe-T-Gate Vertical	Safe-T-Gate Swing
Stopping power Consult BLAST Impact Rating Chart for complete weight and speed ratings.	Stops up to 2,000 lbs. of force.	Stops up to 30,000 of force.	Stops up to 5,000 lbs. of force.	Stops up to 30,000 lbs. of force.	Stops up to 29,800 lbs. of force.	Stops up to 1,000 lbs. of force.	N/A
Deflection when impacted	60' long curtain: 12"-24" depending on tightness of curtain.	20' length: 32" 40' length: 50" 60' length: 84"	9'6" long rail: 2"	9'4" long rail: 12"	2"	Up to 10'0" opening: 6"	5' gate: 6"
Maximum clear width between uprights	60'	60'	9'8"	9'4"	Does not utilize uprights – individual sections are bolted together.	12'0"	5'0"
Ease of removal & repositioning for access to opening	1-2 minutes. 20:1 gear ratio makes it easy to tighten.	5-10 minutes. Optional storage system available.	Permanently fixed posts; rails can be installed to allow easy lift-out. 10' rail weighs 15 lbs.	Permanently fixed barrier. Removable rail option available. 9'4" rail weighs 80 lbs.	Permanently fixed barrier.	Manual operation: Less than 5 seconds, 15 lbs. of force.	Manual operation: Less than 5 seconds, 15 lbs. of force.
Special notes	Available in 30' and 60' lengths. Latching post can be common member.	Single post and/or single strap configurations also available. Posts can be common member. Straps available in 10' increments.	Rails can be sized in field. Up to seven rails can be installed between posts. Add-on post can double height.	Standard rails: 9'4" Shorter, custom-sized rails available.	Can be combined with GuardRite Flex or GuardRite Strap. 90° corner section available.	Posts can be used as common members with GuardRite Flex. Overhead clearance required is opening width plus 4'4".	Posts can be used as common members withs GuardRite Flex.

GuardRite® Strap

GuardRite Strap is a simple but powerful barrier. It's designed to provide protection in places where occasional unrestricted access is needed. That includes interior loading docks and exterior platform docks.

GuardRite® Steel

GuardRite Steel is a traditional guardrail, ideal in situations where rigid, durable protection is needed. Examples include isolating open, exposed work areas, separating conveyors from pallet storage, and protecting workstations at loading docks.

GuardRite® Flex

GuardRite Flex is a modular, high-visibility fixed barrier system that is easy to install, and can be configured in a variety of ways. It's ideal wherever separation for pedestrian traffic is necessary — at entrances to the plant, along inside perimeter walls, and outside of cafeterias and restrooms.

Safe-T-Gate® Vertical

Safe-T-Gate Vertical is a lightweight, cost effective personnel barrier that provides easy pedestrian access whenever needed. While not designed to stop material handling vehicles, it will absorb minor bumps with little or no damage.

GuardRite® Sure-Stop

GuardRite Sure-Stop is an eight-inch high gusseted barrier that is available in 18", 24", 36", 48" or 60" lengths. It's essential for safeguarding the bases of electrical boxes and the walls in modular buildings.

Safe-T-Gate® Swing

Safe-T-Gate Swing is a low cost, easy-to-operate safety gate personnel barrier. It can be used inside a facility to separate pedestrian walkways or other light duty applications.

Mezzanine safety barrier systems

Protect your employees and avoid accidents when working on mezzanines and elevated work platforms with this dual reciprocating safety barrier.

GateKeeper® Mezzanine Safety Gate

When the outer gate on the edge of the platform is opened, the inner gate closes to prevent access to an exposed edge. When the inner gate is opened the outer gate closes to provide a barrier on the exposed edge.

The exclusive Saf-T-Latch prevents workers from raising the gate from inside the work zone. Integral toeboard prevents objects from being pushed to a lower level. The guarded 3” track and nylon rollers with sealed precision bearings provide smooth, maintenance-free operation.

- Exclusive link bar design ensures both gates work in unison
- Optional automated design uses push button control features for easier operation
- Addresses ANSI standard MH28.3 6.4.3 - 2009

RacKeeper® Safety Gate

The RacKeeper Safety Gate is perfect for multilevel pick modules or any other elevated work area that requires fall protection within a racking system.

Improving industrial **safety**, **security**, and **productivity** worldwide through quality and innovation.

- VEHICLE RESTRAINTS
- LOADING DOCK LEVELERS
- DOCK SEALS AND SHELTERS
- INDUSTRIAL DOORS
- HVLS FANS
- BARRIER SAFETY SYSTEMS
- MACHINE GUARDING SYSTEMS
- INDUSTRIAL CURTAIN WALLS

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