



# How to improve safety at your loading bay

**ASSA ABLOY**  
Entrance Systems

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## Every load is an accident waiting to happen

Loading bays are typically the busiest areas at logistics companies, warehouses and production facilities – and the most dangerous.

Large vehicles, heavy equipment and people are constantly on the move, often at high speed. Raised, uneven work surfaces, as well as high noise levels, heavy loads and blind spots add to an already high-risk environment. In this setting, the potential for injuries – or even fatal accidents – is high.

Regrettably, accidents and injuries are common. It is estimated that 25% of all reported industrial accidents occur at loading bays<sup>1</sup>. In most cases, it is only after a serious accident has occurred that measures are taken to find solutions to make the loading bay a safer place to work.



# 25% of industrial accidents occur at loading bays<sup>2</sup>

1. <https://www.ishn.com/articles/107356-slow-down-watch-out-know-the-facts-about-loading-dock-hazards>  
2. <https://www.ishn.com/articles/107356-slow-down-watch-out-know-the-facts-about-loading-dock-hazards>



## Identify the clear risks and hidden dangers

Every loading bay has its own tempo and operational challenges. Activity levels differ throughout the day, and at peak times fatigue can set in. Weather conditions can vary from hot and dry to icy, rainy and cold, making working conditions hot, wet or slippery.

Natural light levels fluctuate according to the time of day, season and when moving from an indoor to an outdoor area, which can temporarily blind workers. High noise levels may require workers to wear hearing protection and prevent them from hearing approaching vehicles or warnings.

Visibility varies depending on the number of vehicles at the dock, the type of loading bay and whether the door is opened or closed, which means workers can't see what's approaching.

In situations where loading bay workers and drivers don't share a common language, communication breaks down and misunderstandings occur. And when people don't have access to or have not received adequate risk awareness and safety training, an unequal safety playing field arises.

## Even minor risks can result in serious injury

When operational challenges are coupled with hazards and risks, such as error-prone, time-consuming manual equipment and processes and inadequate training, the likelihood for human error is high.

So high in fact that figures published by the Industrial Safety and Hygiene News indicate that for every loading dock accident that is reported to authorities, it is estimated that there are about 600 near misses<sup>6</sup>.



For every reported accident, there are about 600 near misses<sup>7</sup>

## Eliminate hazards and dangers before someone is injured

Every year, thousands of workers suffer serious or fatal injuries when working around vehicles that collect or deliver goods<sup>3</sup>. Though these accidents are largely preventable, statistics from the UK confirm that the average number of fatal work injuries in transportation and storage remained relatively constant from 2014 until 2019<sup>4</sup>.

## Investing in safety will save lives and unforeseen expenses

Anyone who has experienced a preventable injury at a loading bay will know it can have far-reaching consequences. Not only is the severity of injuries related to loading bay accidents high, the impact and the costs can be crippling for the worker – and their employer.

Income can be lost as a result of days away from work, which usually results in a fall in productivity for the employer, plus medical and administrative expenses, insurance costs and increased premiums, as well as repairs to vehicles and equipment, which can be costly.

A proactive approach is urgently needed to not only save lives, but drastically reduce the frequency and severity of accidents, and the economic repercussions.

## Impact of workplace injuries in transportation and storage, UK 2017–18<sup>5</sup>



15 – number of fatal injuries



40% – non-fatal workplace injuries that resulted in work absence of +7 days



€515,500,000 – total economic cost of workplace injuries in transportation and storage

SPACE FOR IMAGE

Every unmanaged  
risk has unlimited  
potential



## The most common loading bay accidents

When hazards and risks are overlooked or ignored, the severity of injuries related to loading bay accidents is typically very high<sup>8</sup>.

The most common accidents at loading bays are falls, premature vehicle departure, vehicle creep, as well as struck-by and caught-between injuries.



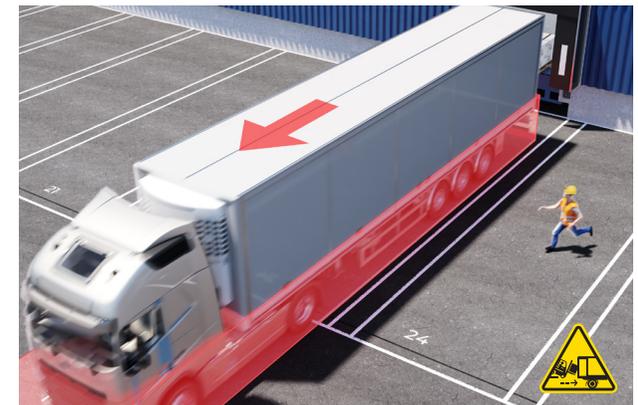
Falls from the edge of the dock are frequent due to slippery work surfaces, open doors and distractions.



A gap opening up between a docked vehicle and the loading bay can go unnoticed and is often caused by a load shifting and the vehicle suddenly moving forward.

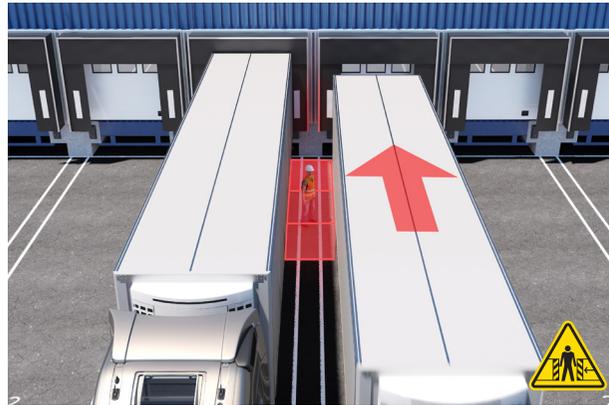


When a truck pulls away from the dock prematurely, it can have potentially fatal consequences for forklift operators or people working in the trailer or around the loading bay.

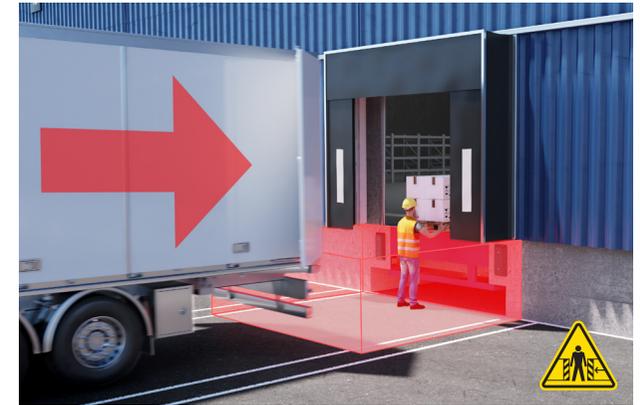


If heavy equipment is used to load or unload a vehicle that is not adequately restrained, it can creep forward each time the lifting equipment moves in and out of the vehicle.

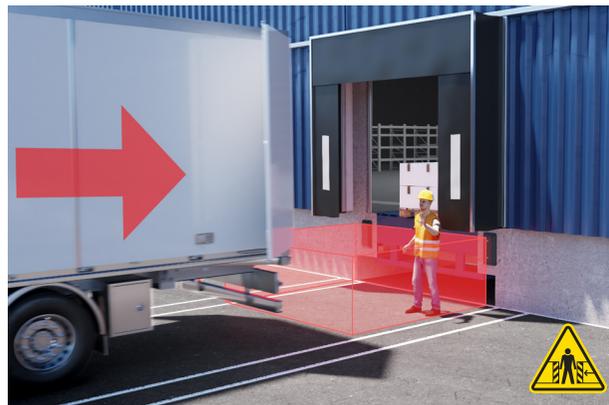
## Caught-between and struck-by accidents can result in severe injuries



Working in confined spaces around two moving vehicles or tilting trailers increases the risk of becoming trapped and crushed between the trucks.



Improperly secured vehicles can roll backwards and pin anyone standing between the truck and the dock.



A vehicle backing up to the dock can pin people working around the area against the dock.



When vehicles back up to a docking bay, people standing or working around the door opening can be pinned against the loading bay entrance or hit by falling loads.



Preventive  
measures will  
save lives



## Assess risks regularly and take the right precautions

With the constant ebb and flow of vehicles and loads, conditions at the loading bay environment change throughout the day.

At some facilities, doors are kept closed until a vehicle is docked at the loading bay. At others, doors are kept open for ventilation. The height of a truck trailer can differ, depending on the load and vehicle type. Load weight and height can vary, and vehicles and forklifts move at different speeds and maneuver in different directions, depending on the task at hand.

In situations where there is an increased risk of accidents, carry out regular risk assessments and make sure proper safety precautions and procedures are in place.

**70%** of all reported accidents and associated costs can be avoided with proper safety precautions<sup>10</sup>

## Standards differ from place to place

These situations all have an influence on safety, yet there are no universal safety standards or requirements for loading bay equipment or operations. National codes of practice and baseline requirements and recommendations provide best-practice guidance, but generally differ from country to country.

Universal industry standards would go some way to help improve safety and provide benchmarks for contractors, facility owners, and managers who are looking to purchase, replace or upgrade existing loading bay equipment. When workers from different companies operate at the same site, the work environment needs to be coordinated. National regulations and rules might apply in these cases<sup>9</sup>.

To ensure your loading bays comply with the safety regulations and codes of practice that apply in your area, only use loading bay equipment that meets local safety standards and is fit for purpose. For the latest safety guidelines, contact local regulatory bodies, such as health and safety authorities to stay informed of any changes.



## Control hazards and minimize risks with mandatory training

With explicit risks and dangers everywhere, contractors, facility owners, managers and users need to take a proactive approach to loading bay safety.

To minimize human error, mandatory training focusing on how to correctly use equipment should be provided by suppliers, as well as regular service and maintenance to keep equipment in top working order.

## Training is vital to improve safety

*“We think it’s vital that the people who use our equipment are trained to use it properly, so as part of our sales offer we spend time training users when we install new equipment”*

Torben Hansen, Key Account Manager, ASSA ABLOY Entrance Systems



## Grundfos address safety with traffic light system

Safety is a top priority for Danish pump manufacturer Grundfos. When the company wanted to optimize safety at its main loading bay area, ASSA ABLOY was approached to provide an effective solution.

With over 30 loading bays, and many heavy vehicles constantly loading and unloading at Grundfos throughout the day, it is a very busy environment. To minimize the risks and dangers for everyone working in and around a vehicle while its docked, ASSA ABLOY installed a sensor-based traffic light system.

A highly visible, universally understood system, the traffic light system signals red to indicate to the driver that the dock leveller is still in use. No matter what language drivers speak, they know not to pull away from the loading bay until the light turns green.



*“We are doing a lot to minimize the risk and dangers at our loading bays. With the new traffic light system from ASSA ABLOY, we can reduce the risk of premature drive off, and make our loading bays a safer place to work for everyone.”*

Leif Poulsen, Assistant Planner, Grundfos

A photograph of a modern industrial building at night. The building has a dark, corrugated metal facade. Two large, dark, rectangular structures are visible, labeled with the numbers '1' and '2'. The structure labeled '1' has two bright white lights and a sign that reads 'Warenannahme Fleisch'. The structure labeled '2' has a single bright white light. The ground is illuminated with a strong red light, creating a dramatic and somewhat ominous atmosphere. The sky is a deep blue. In the center of the image, the text 'One injury is one too many' is written in a large, white, sans-serif font.

One injury is  
one too many

## Solutions to maximize docking bay safety

### Safety zone buffers

Form a safe space between the reversing vehicle and the loading bay where workers can escape or move under the leveller to avoid being injured

### Docking control systems

Provide complete control of a variety of dock levellers, dock shelters and doors in a single control unit

### Dock doors

Automatic doors keep people comfortable and protected, and control or speed up access to all kinds of businesses

### Dock-In and traffic light system

A combined parking guide and light system that provides a visual target for drivers to align their vehicle with the center of the docking bay

### Dock levellers

Level the difference in height and distance between the dock and the floor of the docked vehicle

### Dock light

Shatterproof, long-life LED lighting that illuminates the loading area inside the truck trailer

### Dock shelters

Create a seal between the vehicle and the loading bay and eliminate any gaps

### Loadhouses

Combine the dock leveller, dock shelter and door on the outside of the building, creating a safe, self-contained, sealed working environment

### Restraint systems

Automatic or manual, restraint systems trap the wheel of the vehicle, preventing unplanned movement during the loading and unloading process

### Traffic light system

Sensor-controlled system that detects the presence of a vehicle – when the loading bay is empty, the traffic light inside the building is red, and outside, green

### Wheel guides

Helps drivers back vehicles into the right position in the center of the loading bay and make it easier to park and avoid collisions with buildings and other docking equipment

### Wheel chock

Sensor-driven system that detects the presence and position of a vehicle and blocks it during loading and unloading

For more detailed information, visit [assaabloyentrance.com](http://assaabloyentrance.com)





## Schedule regular maintenance and service

With the right equipment installed at your loading bay, many risks and dangers can be minimized. However, all equipment must be properly maintained. Regular, scheduled service and maintenance checks are vital to safeguard workers and keep operations running smoothly.

With the constant back and forth of heavy vehicles, wear-and-tear is unavoidable. Human error or improper use can result in heavy-impact collisions or damage to equipment. And of course all equipment – automatic and manual – needs regular maintenance to keep it in top working order.

When these conditions are not adequately managed, or if people continue to use faulty equipment, it can fail and increase the risk of serious injury.

To get the most out of your equipment, choose a supplier that can also service all of your loading bay equipment, regardless of brand, such as ASSA ABLOY Entrance Systems. It is also important to choose a service partner who has access to a comprehensive inventory of spare parts, and offers preventative maintenance and comprehensive quality control checks.

A rapid response to any issues that may arise is also important. A fast resolution of any issues will help minimize eventual operational bottlenecks and downtime, and deter workers from implementing temporary fixes, and possibly dangerous short-term solutions.

## Establish a strong safety culture

When risks and dangers are identified and managed, your loading bay will be a safer place.

To strengthen awareness and build a strong safety culture, the following factors go hand-in-hand with updated or new solutions:

- Ensure the right loading bay accessories are installed to minimize risks and potential accidents
- Train operators to correctly use equipment
- Carry out risk assessments and develop safe work systems that are practiced and enforced
- Invest time to educate and inform all visiting drivers about your safety culture and solutions
- Display signs and posters around the loading bay to warn and inform visitors and workers
- Ensure training is regular and ongoing
- Schedule regular, preventative maintenance with recognized service providers. ASSA ABLOY offers a range of service options to suit all business types.



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

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 and services.

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or call your nearest ASSA ABLOY sales representative  
to find the safest solutions for your docking bay