



# Important Facts about Industrial Accidents



## Important Facts

- **5% of all warehouse workers** will experience an injury on the job each year.
- **The transportation and shipping industry is behind only service members** (firefighters and police) in terms of how many accidents it experiences as an industry.
- According to the National Safety Council, **preventable workplace deaths** have increased nearly **18%** since 2009.
- Serious, non-fatal injuries **cost \$84.04 million a week** in the transportation and warehousing industry.
- There **were 2.8 million nonfatal workplace injuries and illnesses** reported by private industry employers in 2017.
- The number of **“days away from work”** cases in warehousing and storage **rose by nearly 3,000 cases to 17,390** total cases in 2017.
- The American Supply Association reports that **25% of all industrial accidents occur at the loading dock**, many of which are associated with the use of forklift trucks.
- OSHA reports **36% of the nearly 100,000 forklift accidents** at the workplace in 2015 **caused either serious injury or death**.
- Nearly **100 employees are killed and 95,000 are injured every year while operating forklifts** in all industries.

Source: <https://www.conveyco.com/warehouse-safety-statistics/>



## **How much these Industrial Accidents Cost?**

# The Cost of Warehouse Accidents

- According to the National Safety Council, a **worker injury costs companies an average of \$38,000 in direct costs**, which includes things like medical bills and rehabilitation.
- It's the **indirect costs**, however, that tend to add up, and the Council estimates that companies pay about **\$150,000 per accident**. These indirect costs cover everything from damage to equipment or vehicles to loss of productive time due to lowered worker morale and training costs for a replacement worker.
- **Fines from OSHA** can be costly for businesses. Serious and other-than-serious infractions come in at **\$12,600**, while willful or repeat violations will cost you **\$126,000**. They are often issued for things like:
  - **Forklifts**
  - **Hazard communication**
  - Guarding floor and wall openings and holes
  - Exits
  - Portable fire extinguishers

Source: <https://www.safeopedia.com/what-are-some-stats-around-warehouse-accidents-and-the-costs-they-can-create-for-a-company/7/6737>

# Proximity Detection & Collision Warning



## Industrial Forklift Safety Hazard Stats

OSHA – **97k** forklift accidents, dozens of fatalities,  
**90k** plus injuries in average year

20% Forklift accidents (19000 plus) are preventable & related to pedestrian due to the lack of warning



# Proximity Detection System (PDS)



A PDS is designed to reduce the risk of collision between pedestrians and moving vehicles in your workplace. The system uses the cutting-edge RF technology to precisely measure the distance between vehicles and pedestrians and provides a highly reliable collision warning.



## High Accuracy

UWB technology-based highly accurate distance measurement.



## Easy Installation

Out-of-the-box with no-registration and no-calibration.



## Bilateral Alarm

Acoustic or vibration alarm for both a driver and a pedestrian.



## Easy Operation

Simple and customizable configuration and operation.



## OEM-independent

PDS is OEM-independent, so it is ideal for mixed fleets. Can be fitted to new forklift trucks or retrofitted on your existing fleet.



## Configurable Warning / Detection Zones

Different alert zones for vehicle to vehicle interaction versus vehicle to pedestrian interaction.

# PDS - Vehicle to Pedestrian



Vehicle Tag (VT)



Vehicle Indicator



Pedestrian Tag (PT)



## Purpose

To provide a proximity alert to vehicle operators and pedestrians of possible collision.

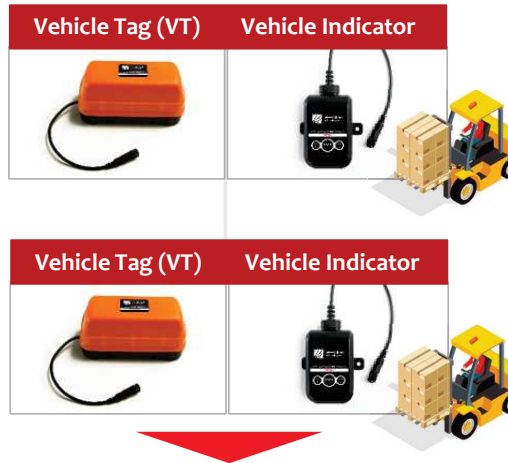
## How

When a pedestrian wearing a PT enters the Warning or Danger range, the VT-indicator sounds "Watch out" or "Danger" message to the vehicle operator repeatedly and the pedestrian gets a vibrational/ beep alarm at the same time.





# PDS - Vehicle to Vehicle

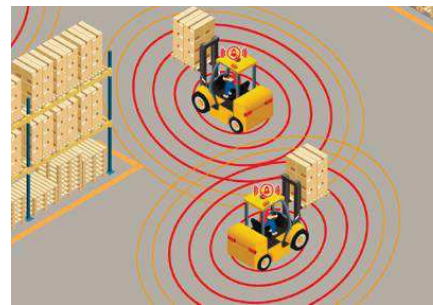


## Purpose

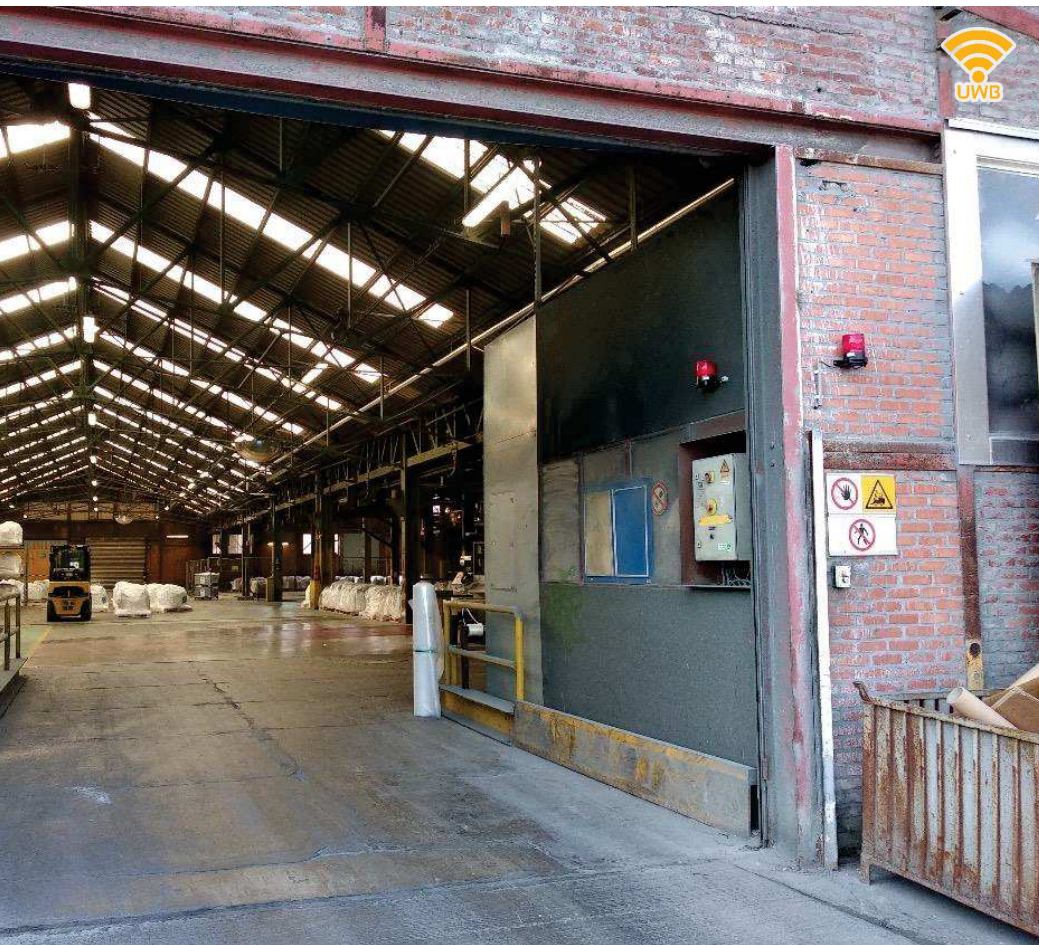
To provide a proximity alert to vehicle operators and prevent possible collision.

## How

When two or more vehicles enter the Warning or Danger range, the VT- indicator in both vehicles sound "Watch out" or "Danger" message repeatedly.



# PDS - Blind Spot



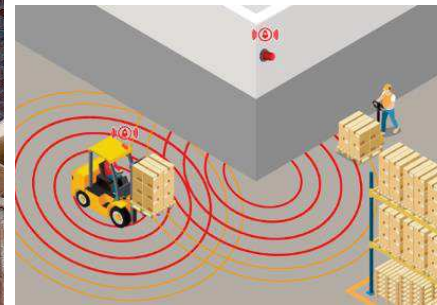
Vehicle Tag (VT)



Vehicle Indicator



Flashing Zone Tag



## Purpose

To detect vehicle in blind areas and provide a visual alert to pedestrians.

## How

When a Flashing Zone Beacon is installed at a blind spot, it detects a vehicle outfitted with a VT and signals an alarm to alert pedestrians of approaching hazards.

# PDS – Intersection Management



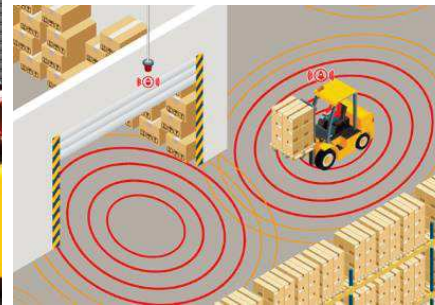
Vehicle Tag (VT)



Vehicle Indicator



Flashing Zone Tag



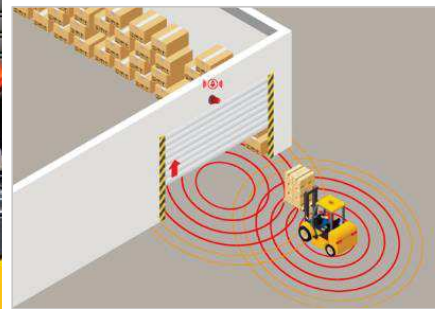
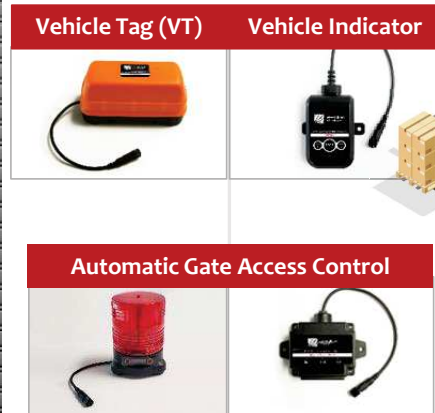
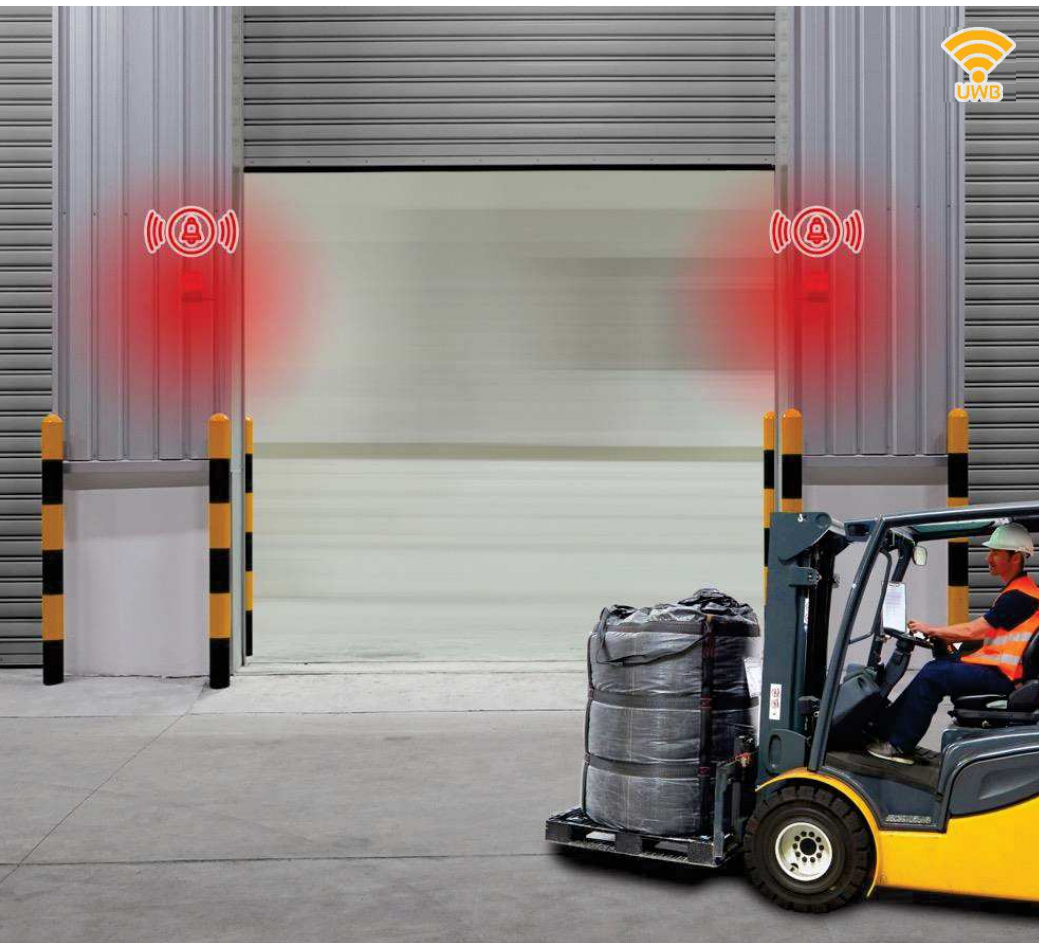
## Purpose

To detect vehicles at intersections and provide a visual alert to pedestrians.

## How

When a Flashing Zone Tag is installed at an intersection, it can detect vehicles installed with VTs. It flashes and alerts workers in the vicinity of an approaching hazard.

# PDS – Automatic Gate Access Control



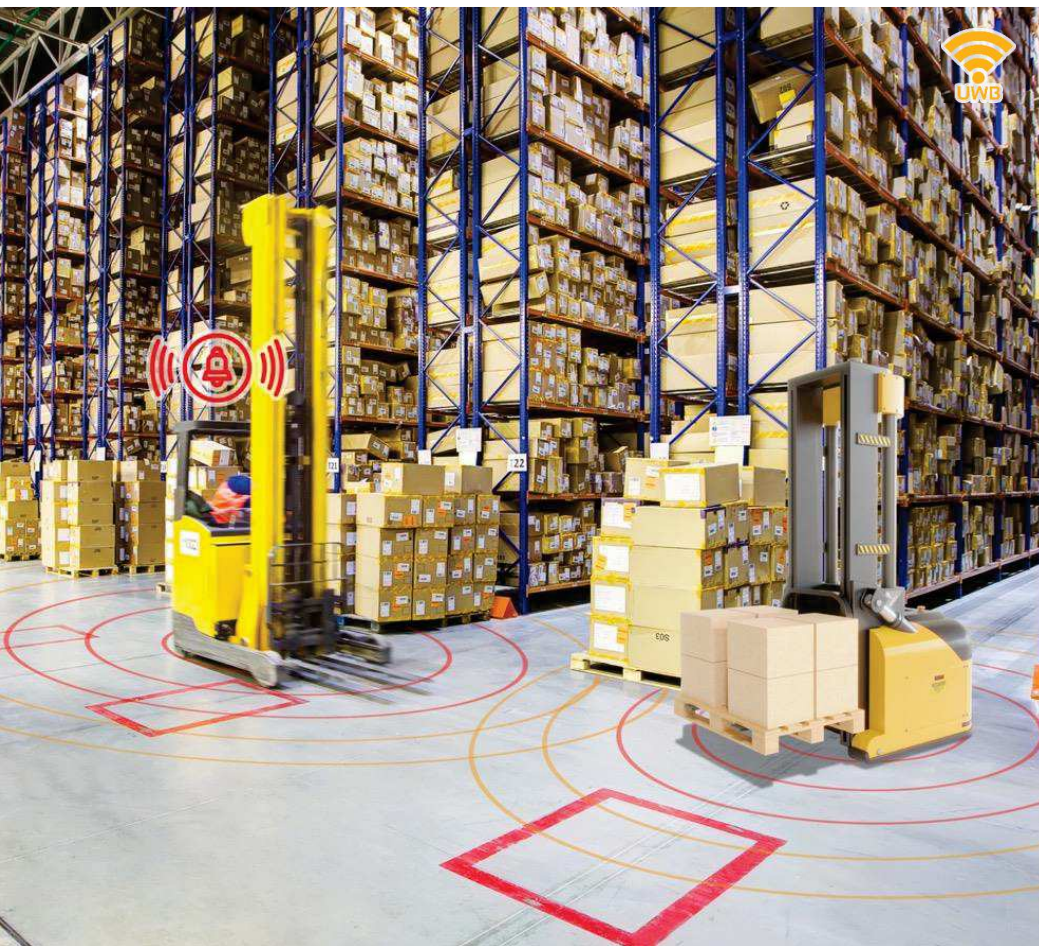
## Purpose

To control access of only authorized vehicles in access control area.

## How

When a Flashing Zone Tag is connected to an External Output Device (EOD) detects a vehicle outfitted with a VT, it signals the Gate Access Controller to open the gate.

# PDS – AGV Anti-Collision



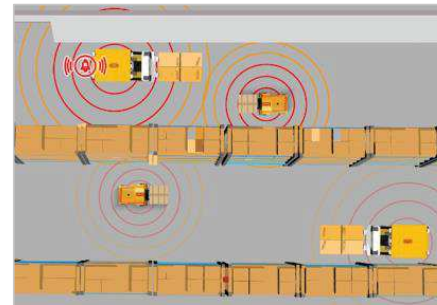
Vehicle Tag (VT)



Vehicle Indicator



Vehicle Tag (VT)



## Purpose

To prevent collision accidents between AGV (Automated Guided Vehicles) and Forklifts.

## How

When an AGV is installed with a VT, forklifts that are also equipped with VTs are able to easily detect the AGV and alert forklift operators of their proximity.



For more information visit us on the web:  
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