



**SLOAN**  
SECURITY GROUP

Scan to view  
on the web



WHITEPAPER

# Wedge Barriers and Retractable Bollards: Understand the Differences and Ideal Scenarios.

[WWW.SLOANSG.COM](http://WWW.SLOANSG.COM)

# Wedge Barriers and Retractable Bollards: Understand the Differences and Ideal Scenarios.

Choosing the Right Physical Security Barrier: Wedge Barriers vs. Retractable Bollards.



## Introduction

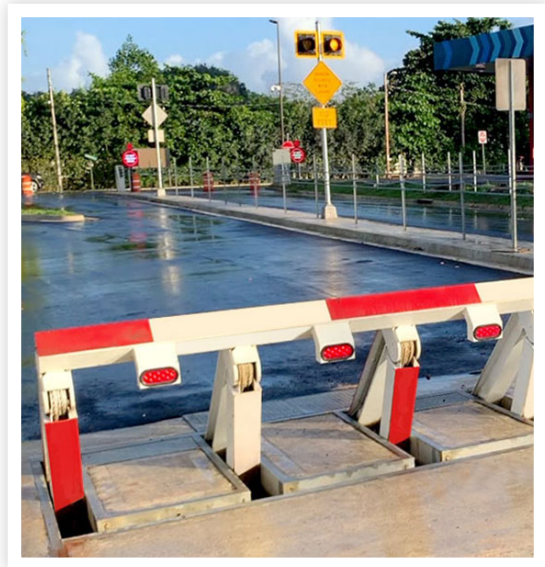
In today’s ever-evolving security landscape, the need for effective physical barriers to protect critical infrastructure and public spaces has become increasingly important. Wedge Barriers and Retractable Bollards are two prominent solutions that play a crucial role in restricting vehicular access while allowing controlled entry and exit in various scenarios. Understanding their differences and knowing when to use each of them is vital for making informed security decisions.

## Wedge Barriers

Wedge Barriers are hydraulic or electromechanical systems designed to deploy rapidly from the ground to create an impassable barrier. These barriers typically consist of a set of wedge-shaped segments that rise from the surface to block vehicle access. They are capable of stopping vehicles ranging from cars to heavy trucks, offering an impressive level of security.

## When Are Wedge Barriers Typically Used?

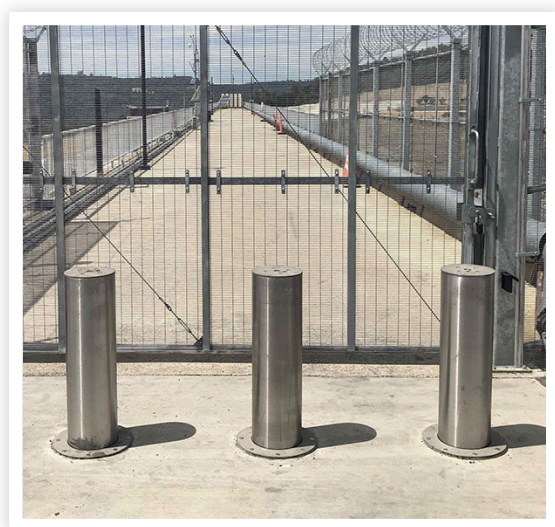
**Critical Infrastructure Protection:** Wedge Barriers are often used to safeguard critical infrastructure, such as government buildings, military, power plants, and data centers.



**Access Control Points:** They are employed at access control points of high-security facilities to prevent unauthorized vehicle entry and control traffic flow effectively such as stadiums, arenas, and public parking lots.

**Border Security:** Wedge Barriers find application in border control scenarios, where they aid in preventing illegal crossings and unpermitted vehicle access.

**Emergency Vehicle Access:** These barriers can be integrated with security systems to allow swift and secure entry and exit for emergency response vehicles during critical situations.



## Retractable Bollards

Retractable Bollards, also known as hydraulic bollards, are sturdy vertical posts that can be raised or lowered to control vehicular access. They are typically operated hydraulically or electro mechanically, providing a strong deterrent against unauthorized entry.

## When Are Retractable Bollards Typically Used?

**Pedestrian Safety:** Retractable Bollards are commonly used in urban areas to protect pedestrian zones, sidewalks, and public spaces from unauthorized vehicle intrusion.

**Temporary Road Closures:** They are ideal for controlling traffic and closing roads temporarily during events, parades, farmer's markets, or construction work.

**Building Entrances:** Retractable Bollards are employed around building entrances to prevent vehicle ramming attacks and enhance the overall security of the premises.

**Vehicle Access Control:** These bollards are suitable for scenarios where selective vehicle access is required, such as in parking areas, limited access areas or restricted zones.

## What Are The Differences?

**Deployment Mechanism:** Wedge Barriers deploy from the ground by rising vertically and forming a wedge shape, while Retractable Bollards raise or lower vertically from their sleeves.

**Stopping Power:** Wedge Barriers offer higher stopping power, capable of halting heavy vehicles with significant force, whereas Retractable Bollards are effective against most vehicles but may not stop heavier ones.

**Visibility and Aesthetics:** Retractable Bollards are more visible even when retracted, whereas Wedge Barriers are often flush with the ground when not in use, maintaining a cleaner aesthetic appearance.

**Speed of Deployment:** Wedge Barriers typically deploy faster than Retractable Bollards, making them suitable for scenarios that require rapid response.



## How Do Crash Ratings Compare?

The crash ratings of both wedge barriers and retractable bollards are crucial for understanding their effectiveness against different vehicle threats. The ratings are determined through standardized crash tests that simulate vehicle impacts. However, comparing crash ratings between the two can be challenging due to their different designs and functions.

Wedge barriers are often considered to be highly effective at stopping vehicles, and they may have higher crash ratings when compared to individual retractable bollards. This is because the fixed, solid structure of a wedge barrier provides a larger surface area to absorb and redirect the impact energy.



Although Retractable Bollards may not achieve the same high crash ratings as some of the most robust wedge barriers, they still provide a level of protection against vehicle threats.

## How To Choose The Right Solution

The decision to use Wedge Barriers or Retractable Bollards depends on the specific security needs of the location and the level of vehicular threat faced. For high-security facilities and critical infrastructure, Wedge Barriers offer unparalleled protection against potential

threats from determined attackers in heavy vehicles. On the other hand, Retractable Bollards are more suitable for scenarios where a visible deterrent is necessary, such as pedestrian protection and controlling traffic in public spaces.



## Conclusion

In conclusion, both Wedge Barriers and Retractable Bollards are valuable security assets, and their proper selection and deployment should be based on a thorough risk assessment of the site's security requirements and potential vehicular threats.

By understanding their differences and identifying the ideal scenarios for each, security professionals can create robust physical barriers that enhance safety and mitigate security risks effectively.



## Contact

Sloan Security Group, Inc.  
6828 W. Melrose St.  
Boise, ID 83709  
+1-888-382-8379

[WWW.SLOANSG.COM](http://WWW.SLOANSG.COM)