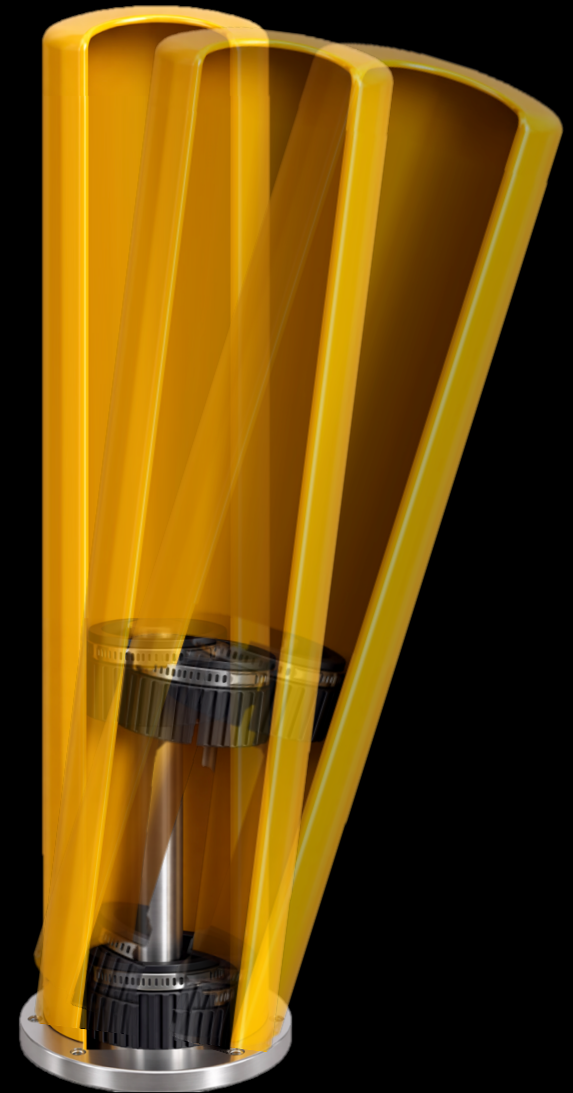


# Impact Recovery **Bollards**

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# Advanced engineering overcomes these problems

When a bollard is impacted the impact force must go somewhere- without some form of shock absorbing mechanism, the result is a damaged bollard or footing and repeated replacement, costing thousands over the life of a development. Advanced engineering overcomes these problems.

**The Impact Recovery System ensures both the bollard and footings are reusable following even severe impact.**





### **Bollards Impact Resistant**

ZERO CIVIL Bollards are made from Australian heavy-duty materials designed to withstand impact, remaining in good condition



### **Bollards self-recover**

Upon low-speed impact bollards absorb the impact force, slowly self-recovering and are removable and reusable following severe impact



### **No damage to footings**

ZERO WASTE Foundations remain in good working condition following multiple low and high speed impacts. Base plates are reusable following impact



### **Superior protection**

Unlike flexible bollards that can over-flex, the strong resistance core provides superior protection against errant vehicles, greatly improving safety



### **Bollard re-usable**

Both surface mount and Inground bollards are removable and reusable following severe impact, saving thousands over the life of a development



### **Footings reusable**

ZERO WASTE foundations remain in pristine condition and surface mount base plates are reusable following severe impact, saving thousands



### **Simple replacements**

Bollards are low cost to maintain. If damaged, they are removed and replaced in less than 5 minutes without the need for digging or heavy labour.



### **Impact resistant base plate**

With square base plates the impact force is concentrated on one anchor- with heavy duty round base plates the impact force is evenly distributed, reducing the risk of damage

# Design your own Bollard

Select the correct Bollard for your application:

1. Choose your bollard casing
2. Choose your Impact Recovery System
3. Choose your resistance Core

More Info to help you decide on the right configuration

- How it works
- Impact Rating charts



# Choose your Bollard casing

*You can secure steel, stainless or Advanced Polymer  
Bollards on the Impact Recovery System.*

## **Galvanised and powder coated Steel**

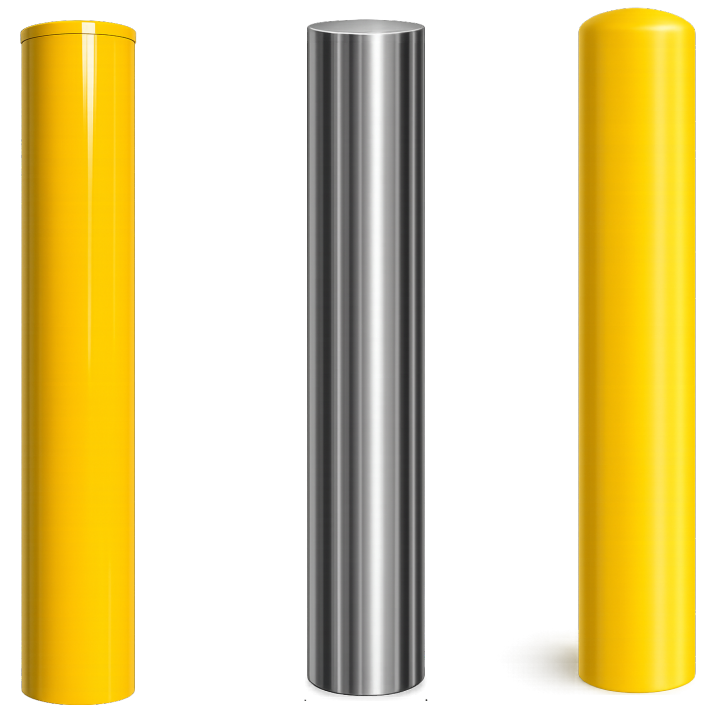
Suitable for industrial locations, but can chip and show scratches

## **Stainless steel**

Stainless for aesthetically pleasing bollards – highly durable

## **Advanced Polymer**

Advanced Polymer impact resistant bollards are suitable for most locations greatly reducing maintenance. Excellent for carparks.



# Choose your Impact Recovery System

## Footing Options

- 350 Inground Heavy Duty
- 650 In-ground Heavy Duty
- 650 In-ground Extra Heavy Duty
- Surface Mount Heavy Duty

VISIT WEBSITE FOR SPECS & VIDEOS

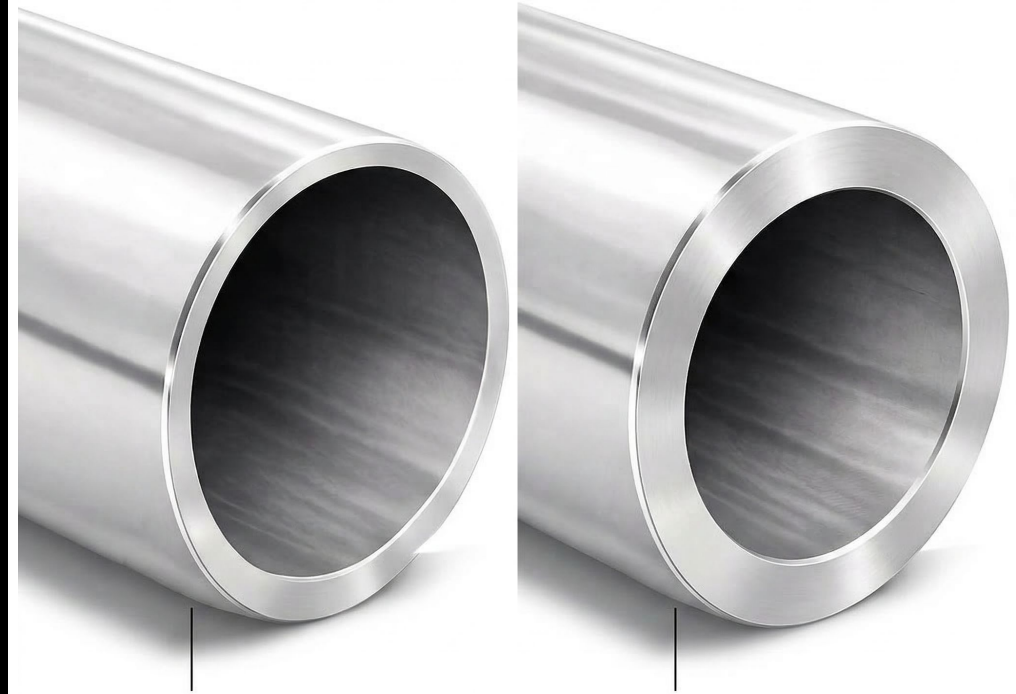


# Choose your resistance core

For 650 mm deep foundations, an Extra Heavy-Duty Resistance Core is available, increasing bending resistance by up to 150%.

This can help reduce maintenance in areas exposed to impacts from utility vehicles, service vehicles, and trucks.

Note: Higher resistance may also increase the severity of vehicle damage on impact, so the maintenance benefits should be considered alongside the potential consequences of a harder collision.



Heavy Duty Resistance Core    Extra Heavy-duty Resistance Core

# **Impact Recovery** System

# 4 levels of extreme protection

## 1. HEAVY DUTY RESISTANCE CORE

Unlike spring loaded bollards that over-flex, a Heavy-duty resistance core works to prevent deflection of the bollard beyond 20 degrees when impacted by a passenger vehicle. The resistance core can be increased from Heavy Duty to Extra Heavy Duty

## 2. SHOCK ABSORBING IMPACT RECOVERY RINGS

Unlike springs that quickly wear out, creating dangerous litigation risks, our re-usable energy absorbing Impact Recovery Rings create a permanent shock absorbing cushion that absorb the impact force and self-recover, with no reduction in capacity following hundreds of impacts, greatly improving energy absorption, safety and resilience



## 3. PROTECTIVE BOLLARD CASING

You can secure heavy-duty galvanised steel or impact resistant stainless-steel pipe bollards to provide an impact resistant surface, but we highly recommend using our impact resistant advanced polymer bollards to further reduce maintenance. UV stabilised and heavy walled made from advanced polymers they are rust proof, scratch and dent proof, designed to last and further improve energy absorption

## 4. ZERO WASTE FOUNDATIONS:

ZERO WASTE Foundations are made from Advanced Polymers that absorb impact energy protecting the surrounding foundations when a bollard is impacted and continue working keeping items secure following multiple high and low speed impacts.

# Bollard safely recovers

Under low-speed or glancing impacts, the Impact Recovery Rings absorb the initial force, allowing controlled bollard deflection of up to 20° before the internal Resistance Core limits further movement.

The bollard then slowly self-recovers without dangerous spring-back.

Designed for repeated impacts, the ring system maintains its recovery performance over time while helping protect the footing from damage.

[VIEW VIDEO](#)



# Fast efficient replacement

Bollards are removable and ground socket can be capped (or another item such as a table or signpost installed)

If the bollard is pushed beyond 20 degrees, the Resistance core will bend and need replacing. The bollard remains safely secured in the footing and footings remain undisturbed.

- 1.** The Bollard is slipped off the resistance core.
- 2.** The Resistance core replaced
- 3.** The bollard slipped back on



**In-ground or**  
Surface Mount

# Inground **Impact Recovery System**

In-Ground Impact Recovery Bollards are suitable for almost any installation environment, including concrete, asphalt, and paved areas. Recommended foundation options

- **350 mm depth** — recommended for most applications
- **650 mm depth** — recommended where bollards may be impacted by utility vehicles or in areas subject to heavier contact
- **Extra Heavy-Duty Core** — recommended in higher-impact environments where reduced maintenance is a priority

The bollard remains rigid. (and cannot be deflected by hand)  
When struck by a vehicle, the Impact Recovery Rings absorb the impact force, allowing the bollard to deflect by up to **20°** before slowly self-recovering.

In more severe impacts, the internal Resistance Core may bend and require replacement.



Ground socket protects surrounding foundations from damage impact after impact

Cap included



Impact Recovery Rings are made from advanced urethane and rubber compound, withstanding hundreds of impacts

# Surface mount **Impact Recovery System**

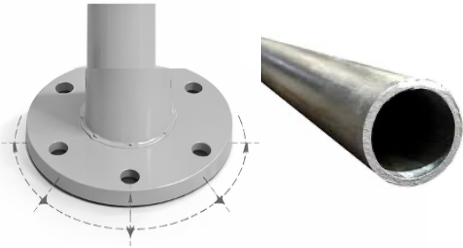
Surface Mount Impact Recovery Bollards are installed into solid concrete surfaces such as pavements, driveways, and slabs.

They remain rigid in normal use, but under vehicle impact the ring system absorbs the initial force, allowing the bollard to deflect up to **20°** and then slowly self-recover.

Following severe impacts, the internal Resistance Core may require replacement



Heavy duty base plate with solid upright spigot resists bending and 5 evenly spaced anchors distribute impact force.



Heavy Duty Resistance core resistant forward movement of vehicles beyond 20 degrees.

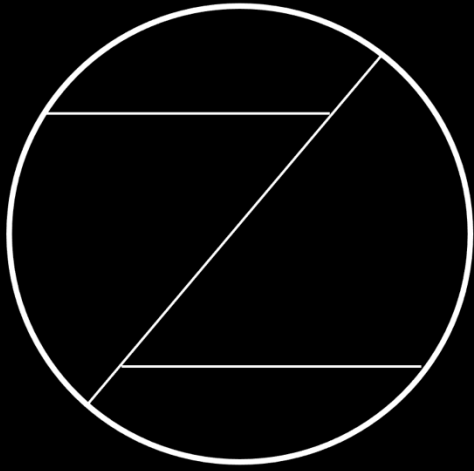


Impact Recovery Rings are made from advanced urethane and rubber compound, repeated recovering following impact



20°





**ZERO CIVIL**

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