## The ultimate nonconductive bollard

At last, a bollard that can stop a vehicle and survive



Bollards are made to protect, yet bollards made from steel or concrete are strong but they crumble under pressure, creating a costly never ending cycle of damage and waste as both the bollard and costly footings are repeatedly replaced. They are also downright trecherous- we have a solution that makes them safer and far more resilient, making both the bollard and expensive concrete footings re-usable impact after impact.

Rio Tinto has been using ZerO Hero reusable concrete foundations for more than a decade to secure minesite infrastructure.





### **Advanced Polymer Bollards**

A safer, more sustainable alternative to steel bollards. They don't dent, chip and although they can be scratched, as they are the same colour throughout (7mm thick) the scratches don't show. They take impact from vehicles and bounce back, becoming even more resistant to impact using the "Impact Recovery System"

#### They are

- Non-conductive
- Impact resistant
- Highly durable
- Fade resistant
- Scratch resistant
- Wont dent or chip
- Available in almost any colour
- Prevent damage to vehicles

- Secured in ground, or
- Surface Mounted
- Can be filled with sand or concrete
- Can be made to self-recover from impact
- Made recoverable from bad impact
- Made removable
- Can be used as bollard covers

# Safer, more durable alternative to steel

To stop a vehicle many people concrete fill a steel bollard but as concrete and steel do not mix well, this poses a dangerous litigation risk. Concrete causes steel to rust and corrode making steel bollards highly vulnerable to breaking off at ground level when impacted

- Steel rusts and corrodes when in contact with concrete
- Steel Dents, scratches when impacted by vehicles
- Steel can cause major damage to vehicles
- Both steel bollards and expensive footings must be replaced every time they are badly impacted, costing thousands over the life of a development

We have a simple solution to all of these problems.



#### Need to stop a vehicle?

If you need to stop a vehicle, we suggest you secure your bollard directly in ground. (i.e.: designed to take a bump from trucks or vehicles) If subject to impact from trucks or possible ram raid- you can fill bollard with sand or concrete.

#### Carparks

For carparks and low speed environments- we highly recommend the Impact Recovery System which will deflect up to 20 degrees and then stop a passenger vehicle at low speed and self-recover.

#### Make existing bollard Safer

If bollards are already installed and just need to be made non-conductive or safer, you can use poly bollard covers to slip over your bollard and secure to improve aesthetics, safety and extend its lifespan



## Safer, more sustainable choice

For a bollard to be impact resistant the footing needs to be substantial and yet when impacted – something's got to give. The result is that thousands of bollards and concrete footings are repeatedly replaced and sent to landfill. Unless you incorporate some form of shock absorbing capabilities, the bollard and footing will need replacing every time.

#### **Improve Resilience**



Advance Polymer Bollards are resistant to scratching, denting and chipping and tyre marks can be simply wiped clean. They also absorb low speed vehicle impact, and self- recover

#### **Make Bollard reusable**

Instead of disposing of both the bollard and expensive footings (creating a large amount of carbon intensive concrete waste) both the bollard and footings can now be made reusable impact after impact

#### **Make Footings reusable**



Instead of paying to repeatedly replace expensive footings (plus disposal and freight costs) ZerO Sockets can now be used to make footings reusable using, saving thousands over the life of a development

# Safer, more durable impact recovery bollards

We get knocked down, but we get up again. You're never going to keep us down!

Bollards can be secured using the Impact Recovery System. Bollards cannot be deflected by hand, remaining perfectly aligned safe and secure year after year. When impacted by a vehicle they deflect to a max of 20 degrees and self-recover.

When severely impacted (truck or utility vehicle) the resistance core can bend and need replacing. Replacements take less than 5 minutes. The bollard, expensive concrete footings and ZerO Rings are reusable impact after impact, saving thousands over the life of a development.



#### **Upon Low Impact**



Bollards remain rigid and appear to be solid inground bollards but when impacted by a vehicle they absorb the impact force deflecting a maximum of 20 degrees and self-recovering, with no diminished capacity following hundreds of impacts.

#### **Severe Impact**

When severely impacted instead of the entire footing being dislodged, the inner resistance core bends allowing the bollard to fold but not be dislodged-preventing any further forward movement of the vehicle and enabling fast reinstatement

#### Fast efficient replacements

Replacements are simple Following severe impact bollard is easily removed (resistance core replaced) and reinstated in around 5 mins Bollards and ZerO Rings are re-usable impact after impact



## Range of colours

150 mm Standard units are Safety Yellow (with optional Red / White reflective striping). 190 mm Standard units are Black with yellow reflective striping

Available in almost any colour (ask for a colour chart) and can be polished for high shine. Moulded dome cap











#### **INGROUND**

Bollards can be installed directly inground absorbing vehicle impact and recovering

#### INGROUND

Bollards Can be installed directly inground and filled with sand or concrete

## SURFACE MOUNT SUSTAINABLE

Bollards can be surface Mounted using the Impact Recovery System deflecting >20 degrees and recovering

#### INGROUND SUSTAINABLE

Can be secured inground using the Impact Recovery System deflecting >20 degrees and recovering.

#### **Advanced Polymer Bollard**

- Lengths available 1200/1500/1800L
- 150 mm / 190 mm Diameter
- Std units Safety yellow
- Can be made other colours (Min 10)
- Reflective striping available (Red 300/white 10)
- Smooth Finish
- Dome cap

#### **Impact Recovery System**

Saving thousands over the lifespan of a development

- 150 mm Bollards
- Surface Mount or inground foundation
- Resistance Core
- 2 x Impact Recovery Rings

