

ZERO WASTE

IMPACT RECOVERY SYSTEM ▶▶



Make bollards reusable impact after impact



City of Perth had a problem maintaining bollards in the busy city centre. They came to us to develop a solution that would provide protection for café strips and pedestrians, reduce damage to vehicles and reduce the escalating cost of maintaining their bollards. We developed the Impact Recovery System that provides a low cost and sustainable solution to all of these problems. Combined with ZerOPoly covers



City of Perth

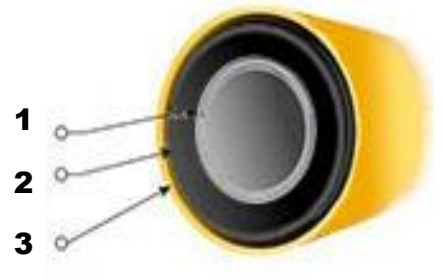
City of Fremantle



mainroads
WESTERN AUSTRALIA

4 Levels of extreme protection

- 1. RESISTANCE CORE** Unlike spring loaded bollards that over-flex, a heavy-duty resistance core prevents deflection of the bollard beyond 20 degrees when impacted by a passenger vehicle
- 2. SHOCK ABSORBING** Unlike springs that quickly wear out, creating dangerous litigation risks, our re-usable energy absorbing ZerO 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 safety and resilience
- 3. PROTECT 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
- 4. PROTECT FOUNDATIONS:** You can surface mount your bollards using our ZerO reusable base plate or secure inground using our ZerO Waste Unbreakable ground sockets. Both options continue working and protecting surrounding foundations impact after impact



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

Unlike spring-loaded bollards, ZerO 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) replacements take less than 5 minutes and 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



Reusable foundations

More sustainable than anything you've seen before- ZerO Waste Unbreakable ground sockets last the entire lifespan of a development (impact after impact) and ZerO Base plate will withstand even severe impacts. Bollards are easily removable and replaceable from ground socket (using tools provided) and base plate in less than 5 mins for events, maintenance, and future upgrades. ZERO expensive maintenance for the life of a development

Safety Polymer bollards

Advanced Polymer Bollards look like steel but absorb impact from vehicles and self-recover without scratching or chipping like steel bollards. They are non-conductive, won't rust or corrode or dent like a steel bollard and tyre marks can be simply wiped off with a damp cloth



Steel bollards

Heavy walled Steel Bollards can be secured inground, or surface mounted using the Impact Recovery System. Standard colour Safety Yellow – but can be supplied in any colour and polished designer caps available.

Secured using the ZerO Rings they become far more durable and resistant to impact. These bollards, used to protect café on a busy corner, were wiped out by a truck only weeks before and reinstated in less than five minutes.

Stainless steel bollards

Heavy walled Stainless-steel Bollards absorb impact from vehicles and self-recover without denting (as ZerO Rings absorb the impact force and heavy-duty pipe is strong enough to take the blow) Highly resistant to rust and corrosion- Aussie made to last!



Range of options

- Galvanised steel (Std unit powder coated Safety Yellow, but can be powder coated colour of choice)
- Stainless steel (Satin finish) the most durable finish
- Durable Poly bollards (Std unit Safety Yellow, but available in almost any colour- ask for a colour chart) and can be polished for high shine.



STEEL BOLLARD

Australian made 150/165 mm \varnothing galvanised steel x 1250H quality powder coated safety yellow



STAINLESS BOLLARD

Australian made 168 mm \varnothing stainless-steel heavy-duty pipe x 1200H with satin finish



POLY BOLLARD

Advanced Polymer bollard 150 mm \varnothing x 1200H in Safety Yellow smooth finish

Inground or Surface Mounting options

ZerO Unbreakable ground sockets (350 or 650mm depth) can be installed when pouring concrete footings by simply positioning upright.

The resistance core is simply dropped into position (no pins or padlocks) "automatically" locking in using friction, which ensures bollards remain safe and secure perfectly aligned impact after impact, year after year.

Surface Mount base plate is secured using quality recessed and galvanised concrete anchors and are reusable impact after impact. The resistance core is attached using an embedded grub screw.

Bollards are simply slipped over the rings and secured using a securing stud.



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