

# RAM48 hostile vehicle mitigation bollards

- › High level protection from out of control vehicles
- › PAS 68 certified and installed with secure footing
- › Crash-tested and rated for 7,500 kg trucks travelling up to 48 km/h
- › Designed in Australia by experienced security engineers
- › Four models available to suit your unique specifications



## SAFEST PROTECTION FOR PEOPLE AND ASSETS

While hostile vehicle attacks are not common, it's important to know you're protected.

The RAM48 hostile vehicle mitigation bollard is designed to save lives. It offers the highest level of protection for sensitive locations and high-value assets – specifically for places where there is a risk of vehicles losing control or vehicle-based attacks. It is certified to international security standards.

Barriers often do not stop vehicles instantly, which means attacking vehicles may travel a significant distance before stopping. RAM48 bollards are PAS 68 certified to stop and immobilise a 7,500 kg truck travelling at 48 km/h. After impact, the bollard remains in place, ready to protect against the next threat.



## MANAGE RISK AND PROTECT YOUR COMMUNITY

Threats to people and property from out-of-control vehicles is a real and important safety and security consideration.

The current National Terrorism Threat Level in Australia remains PROBABLE<sup>1</sup> according to Australian National Security. Crowded places such as stadiums, shopping centres, pedestrian malls and major events will continue to be attractive targets for terrorists and people intending to cause maximum harm. Several incidents have proven Australia is not immune.

Security measures should be equal to the risk and appropriate to the location. But they are only as strong as the weakest link. Our engineers are committed to providing hostile vehicle mitigation bollards that government, private entities, education providers and business owners can depend on to protect your community.

<sup>1</sup> [www.nationalsecurity.gov.au](http://www.nationalsecurity.gov.au)

## RAM48 HOSTILE VEHICLE MITIGATION (HVM) BOLLARDS

The RAM48 range of fixed hostile vehicle mitigation bollards provide a high security option for sensitive and high value locations where protecting people and assets is the utmost priority.

The RAM48 is PAS 68 crash test certified to stop heavy vehicles weighing as much as 7,500 kg travelling up to 48 km/h. Following impact, the vehicle is stopped and immobilised – and therefore no longer a threat to people and property. The bollard remains in place ready to protect against the next threat or impact.

Designed in Australia by the experienced security engineers at Roadside Services and Solutions, there are four RAM48 models available to protect people and high value assets according to your unique requirements.



Pictured: Test vehicle after collision with RAM48 bollard.

	Dimensions	Weight
<b>RAM48F (FIXED)</b>		
Bollard assembly	500 (L) x 500 (W) x 1500 (H)	358 kgs
Bollard only	200NB x 1500 (H)	180 kgs
Hub support	500 (L) x 500 (W) x 500 (H)	98 kgs
Concrete reinforcement	5400 (L) x 1800 (W)	80 kgs

## WHAT IS PAS 68?

PAS 68:2013 is a Publicly Available Specification (PAS) sponsored by the UK Government's Centre for the Protection of National Infrastructure.

PAS 68 is the standard referenced in Australia's Strategy for Protecting Crowded Places from Terrorism, published by the Australian Government in 2017. The International Workshop Agreement 14-1 (IWA 14-1) is a similar standard used to measure the effectiveness of vehicle security barriers in other jurisdictions.

A PAS 68 certification helps ensure the effectiveness of high-security products. The PAS 68 rating covers a range of products depending on the level of security you need (eg size of attacking vehicle and potential speed of travel).

Crash test certified | Stop vehicles up to | Travelling up to  
**PAS 68** | **7,500 kg** | **48 km/h**



Pictured: RAM48 bollard before and after impact by test vehicle.

	Dimensions	Weight
<b>RAM48H (HYDRAULIC / PNEUMATIC / ELECTRO-MECH )</b>		
Bollard assembly	500 (L) x 500 (W) x 2500 (H)	400 kgs
Bollard only	200NB x 1500 (H)	180 kgs
Hub support	500 (L) x 500 (W) x 1500 (H)	140 kgs
Concrete reinforcement	5400 (L) x 1800 (W)	80 kgs

## SAVE LIVES, PROTECT PROPERTY

Impact-tested hostile vehicle mitigation bollards are the safest way to provide a secure perimeter that will allow access for people while stopping vehicles.

They are ideal for:

- › Airports
- › Embassies
- › Government buildings
- › High-value property
- › Hotels and resorts
- › Infrastructure assets
- › Leisure and tourism operations
- › Military assets
- › Outdoor markets
- › Parks and public spaces
- › Pedestrian areas
- › Religious buildings
- › Schools and universities
- › Shopping and retail precincts
- › Stadiums and sporting venues

The RAM48 is the only hostile vehicle mitigation bollard designed and made in Australia. The RAM48 is certified by the Australian Made Campaign as 'genuinely Australian'.

# ROADSIDE

SERVICES AND SOLUTIONS

Expert advice for hostile vehicle mitigation solutions

Roadside Services and Solutions is a wholly Australian-owned company founded in 2009. We specialise in creating a safer environment for our communities.

We employ more than 100 staff across Australia who share our commitment to safety and quality. Our experienced security experts can advise on comprehensive safety solutions for your unique location and circumstances.

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BOLLARDS  
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Environment  
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