

AS5100 Deck and Side Mounted Bridge Barrier



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TL2 & TL3 OPTIONS

AS 5100.2 COMPLIANT

AS/NZS 3845.1 COMPLIANT

INTRODUCTION

The new addition to the Ezy-Guard family is the Ezy-Guard Bridge Barrier System. Using many components from the MASH Test Level 4 Ezy-Guard High Containment system, the bridge barrier configuration is designed for bridges and structures requiring AS5100 compliant edge protection. The Ezy-Guard Bridge Barrier can be deck or side mounted to the bridge structure, saving valuable lane width.

It is compliant to AS 5100.2 - Low Performance Level, AS/NZS 3845.1, and MASH Compliant. The baseplated post arrangement has been evaluated and approved by ASBAP and all state road agencies. When integrated with the MASH TL3, Ezy-Guard 4 system, it provides a high level of roadside safety.

AS5100.2 Low Performance Level is comparable to the MASH Test Level 2 containment level, this is a 2270kg vehicle impacting the barrier at 70km/h and 25°. However, many structures requiring Low Performance Level barriers have posted speeds of 100km/h and are rarely wide enough to achieve a 25° impact angle.

A method for calculating the encroachment angle of an errant vehicle is suggested in the Austroads Guide to Road Design – Part 6 (AGRD-6), Figure 5.8. For a two lane roadway with a 2m shoulder, an encroachment angle of 14.8° is suggested. To more represent real world conditions, the Ezy-Guard Bridge Barrier has been successfully evaluated for a 100km/h speed with the 2270kg vehicle impacting at 15°.

For locations with a posted speed higher than 70km/h, a reduced post spacing configuration of the system is available for the MASH TL3 compliant version of the system.

An Ezy-HC-Carriage is used to secure the Thrie-beam rails to the posts eliminating the requirement for blocking pieces, saving valuable lane width.

ROAD SAFETY AND STRUCTURE PRESERVATION

Ezy-Guard Bridge Barrier is designed for minimal load transfer into the structure, reducing potential concrete damage in a crash. This means less road closures or need to repair concrete after impact damage.

There is also a lower impact risk to the vehicle occupants through the controlled yielding of the barrier posts.

An easy transition into Ezy-Guard 4 is achieved with a short 6m transition length. The shorter transition length results in returning to the higher MASH level crash rating when re-connecting to the Ezy-Guard 4 system.

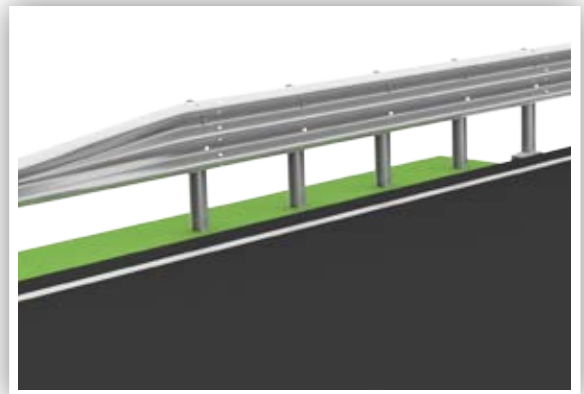
ADAPTABLE TO THE SITE

The Ezy-Guard Bridge Barrier can be easily retrofitted to existing structures, with deck or side mounted options available. It also utilises the Ezy-Guard's narrow 250mm footprint, saving valuable lane width.

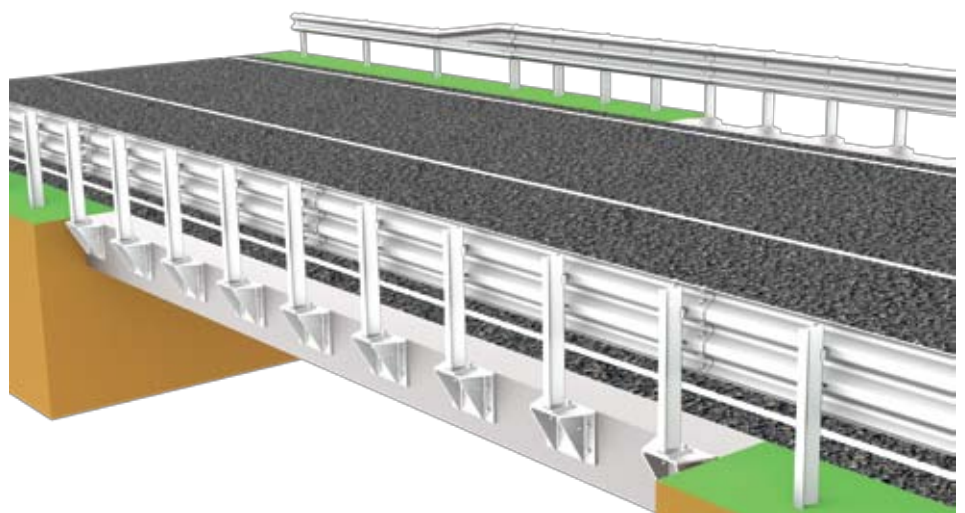
The Ezy-Guard Bridge Barrier system uses all off-the shelf components, with all stock readily available, minimising repair time in the event of a vehicle impact.

Specifications

Thrie-Beam Length:	4,000mm
Ezy-Guard BB Z-Post Mass:	13.5kg
Corrosive Protection:	HDG to AS4680
Rail Height Above Ground:	980mm
Z-Post Height Above Ground:	970mm
Post Spacing:	1m or 2m
Ezy-Guard BB System Width:	245mm



EZY-GUARD
BRIDGE
BARRIER



Innovative Engineering

The Ezy-Guard Bridge Barrier System

The Ezy-Guard Bridge Barrier System is compatible with w-Beam Guardrails, but maximum MASH rating is achieved through the use of Ingal's proprietary Ezy-Guard 4 or Ezy-Guard HC guardrail systems.

Ezy-Guard HC
High Containment Barrier

Transition to
Ezy-Guard 4 Guardrail

Side Mounted
Support Structure

The Ezy-Guard Bridge Barrier requires no additional footings and can be bolted directly to the bridge structure itself.

Bridge Structure

ADVANTAGES

- Lower impact risk to vehicle occupants through controlled yielding of barrier posts
- Low load transfer into the structure, minimising concrete damage in a crash
- MASH TL2 and TL3 options available to suit your needs.
- Off the shelf components with stock readily available
- Narrow 250mm footprint, saving valuable lane width
- Can be easily retrofitted to existing structures
- Deck or side mounted options available

TL2 & TL3 OPTIONS

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