

BIKER-SHIELD MOTORCYCLIST PROTECTION SYSTEM

REVISION REGISTER

Revision	Description	Date
1	Issued for use.	01/07/2020
1 A	Updated for connection to Ramshield HC. Product Manual updated.	18/12/2023
1 B	Updated for connection to public domain W-beam	21/08/2025

The Biker-Shield Motorcyclist Protection System (Biker-Shield) is a safety device aimed at reducing the crash severity for errant motorcyclists impacting the posts of a W-Beam barrier system, Ramshield and Ramshield HC steel rail barrier systems. It is approved for use by Main Roads WA, under the following conditions.

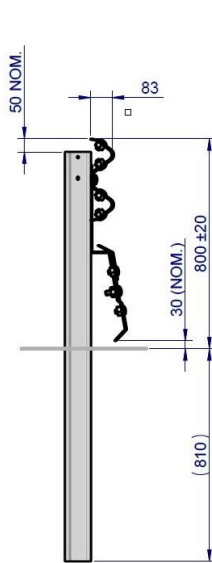
Images:



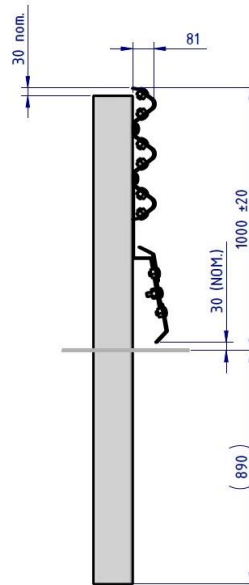
Photographs of the Biker-Shield System

BIKER-SHIELD MOTORCYCLIST PROTECTION SYSTEM

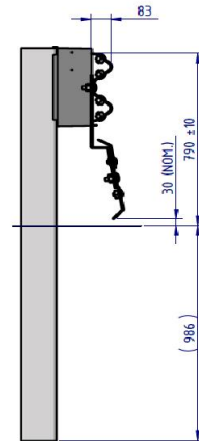
Drawings:



Cross Section of Biker Shield
connected to Ramshield



Cross Section of Biker Shield
connected to Ramshield HC



Cross Section of Biker Shield
connected to W-beam

Ownership: PASSCO.DE Gmbh

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Test Level:

- This system was tested with sliding dummies impacting the rail at 60km/h at an angle of 30° and falls within the EN1317-8 Impact Severity Level II.
- The addition of Biker-Shield does not adversely affect the performance of the Ramshield or Ramshield HC steel rail barrier systems.

Configuration:

- The Biker-Shield system consists of a continuous horizontal steel rail mounted onto bracket below the Ramshield or Ramshield HC steel rail barrier at midspan between the posts. The Biker-Shield splices are to be lapped in the direction of the adjacent traffic (i.e. the same way as the Ramshield steel rail or W-Beam barrier).
- The installed length of each Biker-Shield section is 4.0 m.

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Design Consideration:

- Design to be in accordance with the Biker-Shield Motorcycle Protection Product Manual version PM 025-05.
- The cross slope shall be not greater than 10% for the area in front and below the barrier and this area should be free of humps or hollows.
- The barrier should not be installed behind or on top of kerbing.
- Biker-Shield should be installed with a maximum gap of 30 mm between the steel rail and the ground surface.
- The barrier should not be attached to any component of the guardrail end terminal section.
- The rolled end sections must not be within a curve.

Terminal Permitted:

- The rolled end section must be fitted to both ends of the rail.

Limitations:

- The Biker-Shield system has only been tested on straight sections, its performance within curved sections is unknown.
- The Biker-Shield system may only be installed on the W-Beam, Ramshield or Ramshield HC steel rail barrier system.
- The W-Beam barrier must be installed with the top of rail height of 790 mm. The Biker-Shield system can not be retro-fitted to W-Beam barrier systems installed at lower heights.

Installation and Maintenance:

- In accordance with the Biker-Shield Motorcycle Protection Product Manual version PM 025-05.

Parts to be Replaced after Impact:

- All damaged or deformed components must be replaced. Repaired components must not be used.

Parts Typically Re-Useable after Impact:

- Undamaged components

Reference:

- Main Roads WA file 20/1017