## **INGAL MPR (MOTORCYCLIST PROTECTION RAIL)**

# **REVISION REGISTER**

Revision	Description	Date
1	Issued for use.	25/10/2016
2	Format updated, Contact details updated.	3/04/2020
2 A	Connection to Ezy-Guard HC added. Manual updated.	26/10/2022
2 B	Connection to Ezy-Guard SMART deleted, connection to Ezy-Guard 4 added. Post connection modified. Manual updated.	23/01/2024

The Ingal MPR (Motorcyclist Protection Rail), formally known as Asebal, is a safety device aimed at reducing the crash severity for errant motorcyclists impacting the posts of a W-Beam barrier system, the Ezy-Guard 4 and Ezy-Guard HC barrier systems. It is approved for use by Main Roads WA, under the following conditions:

# Image:



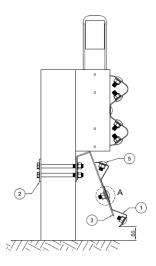
Photograph of Ingal MPR



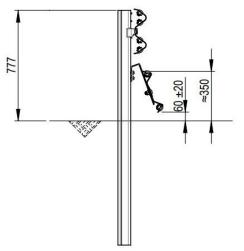
Photograph of the Ingal MPR end piece

## **INGAL MPR (MOTORCYCLIST PROTECTION RAIL)**

### **Cross Section:**



Cross section of Ingal MPR (Clamped to post with bracket)



Cross section of Ingal MPR (Bolted to post)

Ownership: Ingal Civil Products

**Supplier:** Ingal Civil Products

3 Temperley Close, Welshpool WA 6106

Ph: (08) 9358 9139

http://www.ingalcivil.com.au/

#### **Test Level:**

- This system is tested with a sliding dummy impacting the rail at 60km/h at an angle of 30° and falls within the UNE 135 900 Level I minimum impact severity class.
- The addition of the Ingal MPR does not adversely affect the performance of the W-Beam system, the Ezy-Guard 4 or Ezy-Guard HC systems.

#### **Configuration:**

 The Ingal MPR splices are to be lapped in the direction of the adjacent traffic (i.e. the same way as the W-Beam system, the Ezy-Guard 4 or Ezy-Guard HC systems).

### **INGAL MPR (MOTORCYCLIST PROTECTION RAIL)**

# **Design Consideration:**

- Design to be in accordance with the Ingal MPR Product Manual (Release 08/23).
- The Ingal MPR can only be installed on W-Beam barriers with steel channel blockouts or solid blockouts or Ezy-Guard 4 or Ezy-Guard HC steel rail safety barrier.
- The gap between the bottom of the rail and the ground level should be 60mm ±20mm.
- The post bracket should be orientated so the open side faces the oncoming traffic.
- The system should not be attached to the components of any end treatment.
- The cross slope shall be not greater than 10% for the area in front and below the system and this area should be free of humps or hollows.
- The system should not be installed behind or on top of kerbing.
- The end pieces must not be within a curve.

#### **Terminal Permitted:**

The end piece must be fitted to both ends of the rail.

#### Limitation:

 The Ingal MPR has only been tested on straight sections, its performance within curved sections is unknown.

#### Installation and Maintenance:

In accordance with the Ingal MPR Product Manual (Release 08/23).

### 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 13/7522