The next generation Steel Guardrail Barrier providing larger vehicle containment and superior motorist safety
Ezy-Guard HC is the newest member of the Ezy-Guard family. Ezy-Guard HC is crash tested to the latest performance standard, MASH Test Level 4.

The Z-post profile shields post edges from vulnerable road users and provides sectional strength when driving through difficult conditions.

An Ezy-HC-Carriage is used to secure the Thrie-beam rails to the posts eliminating the requirement for blocking/offset pieces and rail stiffening plates. This unique connection provides a soft ride-down for the occupants and smooth vehicle containment and redirection.

**FEATURES**

- **Fully Compliant to MASH TL4**
  The MASH TL4 compliance demonstrates the system’s ability to contain and redirect the 10,000kg truck which is 2000kg heavier than the NCHRP-350 TL4 truck.

- **Rapid Installation & Repair**
  Ezy-Guard HC installation can be up to twice as fast to install than conventional guardrail barriers and unlike cable barrier systems, no concrete is required. The Ezy-Guard HC design uses fewer components and features 2,000mm Z-posts that are rapidly driven into the ground. This reduces installation time providing significant cost savings.

- **Narrow Width**
  Ezy-Guard HC is significantly narrower than the traditional guardrail barriers that incorporate the use of blocking pieces. Ezy-Guard HC conserves valuable formation width and allows a greater recovery width to be provided for errant vehicles.

- **Installation in Rock, Asphalt or Concrete Mowing Strips**
  The design of the Z-post makes them suitable for installation in rock, asphalt or concrete mowing strips.

- **Manual Handling**
  Ezy-Guard HC uses fewer components than the public domain guardrail systems. The lightweight Z-post reduces manual lifting by installation crews. The rounded edges of the Z-post provides a handlelike grip when lifting, reducing the possibility of hand lacerations.

- **Quality Materials and Manufacture**
  All rails, posts and carriages are hot-dipped galvanised to provide corrosion-resistance and durability.

- **Soft Ride-Down Decelerations**
  The Ezy-HC-Carriage controls the release of the Thrie-beam rail from the Z-posts. This controlled release reduces the potential for vehicle pocketing and provides a soft ride-down for vehicle occupants.
Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ezy-Guard HC Z-Post Length</td>
<td>2,000mm</td>
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<tr>
<td>Ezy-Guard HC Z-Post Mass</td>
<td>19.5kg</td>
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<tr>
<td>Ezy-Guard HC System Mass</td>
<td>28.8kg per metre</td>
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<tr>
<td>Rail Height Above Ground</td>
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</tr>
<tr>
<td>Z-Post Height Above Ground</td>
<td>970mm</td>
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<tr>
<td>Post Spacing</td>
<td>2,000mm</td>
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<tr>
<td>Ezy-Guard HC System Width</td>
<td>245mm</td>
</tr>
<tr>
<td>MASH TL3 Crash Test Deflection</td>
<td>1.16m</td>
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<tr>
<td>MASH TL4 Crash Test Deflection</td>
<td>1.77m</td>
</tr>
</tbody>
</table>

CRASH TEST ANALYSIS

Ezy-Guard HC has been fully crash tested and evaluated according to the specifications for Test Level 4 (TL4) of the AASHTO Manual for Assessing Safety Hardware (MASH). The MASH specification is an update to and supersedes NCHRP Report 350 for the purposes of evaluating new safety hardware devices.

The MASH TL4 crash test matrix requires the following impacts:

- 1,100kg car travelling at 100km/h and 25 degrees.
- 2,270kg pick-up travelling at 100km/h and 25 degrees.
- 10,000kg truck travelling at 90km/h and 15 degrees.

PERFORMANCE

Ezy-Guard HC provides protection from roadside hazards located close to the edge of the travelled way. The sectional strength of the Z-post reduces lateral deflection whilst providing controlled containment and redirection.

- 209.3 kJ Impact Severity: 10,000kg rigid truck travelling at 90km/h and 15 degrees
- 132.3 kJ Impact Severity: 8,000kg truck travelling at 80km/h and 15 degrees
- 156.4 kJ Impact Severity: 2,270kg pick-up truck travelling at 100km/h and 25 degrees
BENEFITS FOR VULNERABLE ROAD USERS

Vulnerable road users include motorcyclists, pedestrians, cyclists and other road users. Ezy-Guard HC has been designed to provide consideration to vulnerable road users as follows:

- **Rounded Post Corners**
  The Z-post contains smooth, rounded post edges and corners mitigating the risk and severity of fractures and/or contusions.

- **Energy Absorbing, Ductile Z-Posts**
  The Z-posts are designed to yield by bending near ground level. This bending action absorbs impact energy reducing the potential for post fracturing. A fractured or split guardrail post presents a significant laceration hazard to vulnerable road users.

  The Ezy-Guard HC design does not contain any elements that become projectiles and there are no aggressive edges.

- **Shielded Posts**
  The innovative design of Ezy-Guard HC shields the top of the supporting Z-posts by positioning the top of the rail above the posts. This eliminates dangerous snag points, reducing the potential for the barrier to dismount motorcyclists or cyclists. This is a significant safety benefit compared to traditional guardrail and cable barrier systems.