

REBLOC 80SAH_12 CONCRETE SAFETY BARRIER - TEMPORARY

REVISION REGISTER

Revision	Description	Date
1	Issued for use.	30/01/2023

REBLOC 80SAH_12 is a freestanding temporary concrete barrier (12 metre units) that must be anchored at each end. REBLOC 80SAH_12 consists of steel reinforced concrete barrier units using protruding couplings and without intermediate ground attachment.

REBLOC 80SAH_4 is a freestanding temporary concrete barrier (4 metre units). It is approved for use by Main Roads WA, with conditions under a separate design sheet.

REBLOC 80SAH_12_8B is a temporary concrete barrier, where each 12 metre unit (the same units as REBLOC 80SAH_12) is anchored. It is approved for use by Main Roads WA, with conditions under a separate design sheet.

Drawings:

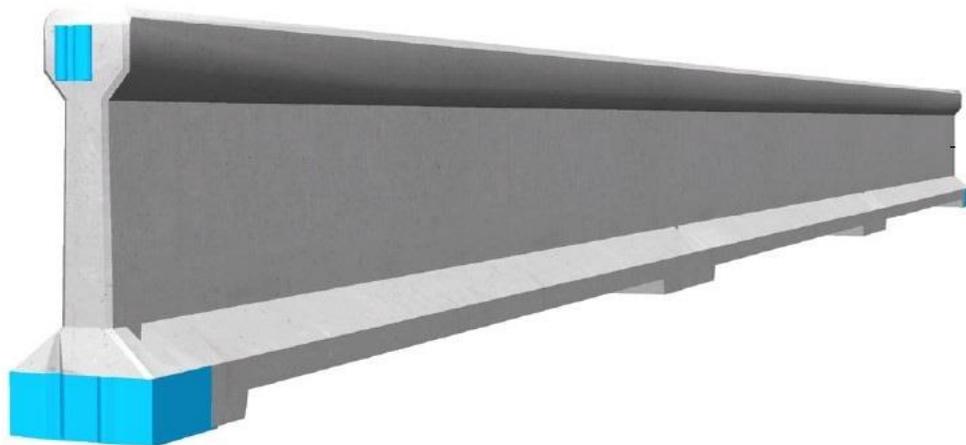
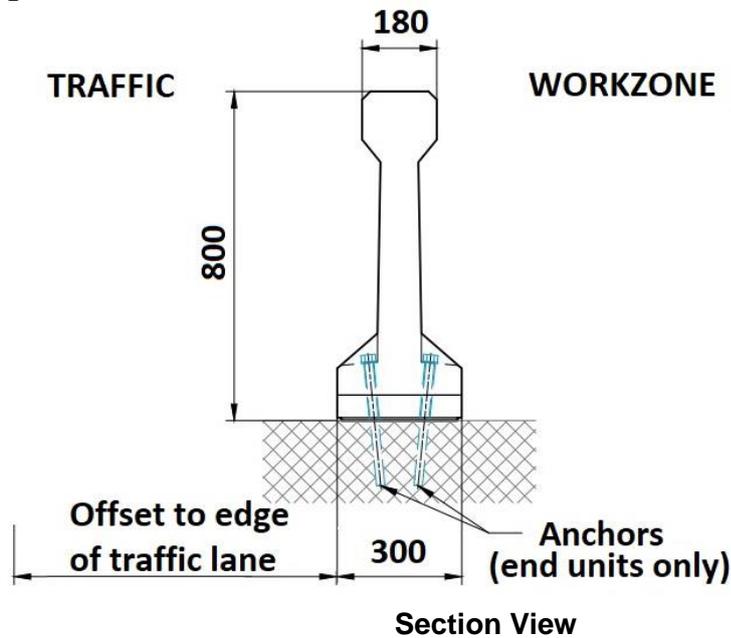
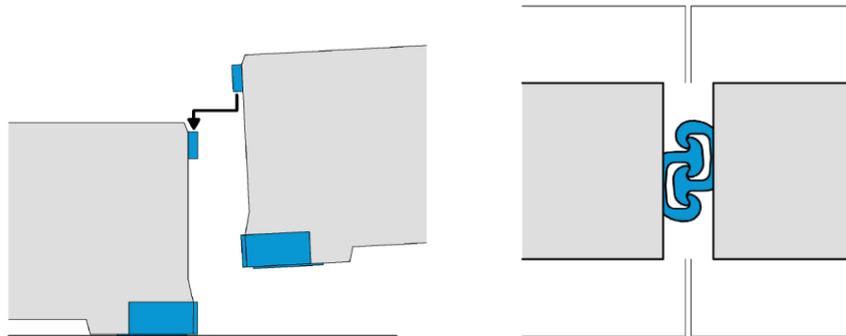


Image of 12 m long REBLOC 80SAH_12 unit

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Photograph of REBLOC 80SAH_12 Units



Images of REBLOC 80SAH_12 Joints

Ownership:
REBLOC GmbH

Supplier:
Hill & Smith Pty Ltd T/A HS Roads
Unit 6, 170 Burnside Road
Ormeau, QLD 4208
Email: sales@hsroads.com.au

Test Level: Crash tested to MASH TL 3 and MASH TL 4.

Test Level	Test Description	Deflection	Working Width
MASH – TL 3	2270 kg vehicle at 100km/h 25° impact angle	1.31 m	1.56 m
MASH – TL 4	10000 kg vehicle at 90km/h 15° impact angle	1.70 m	3.23 m

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Note that while the REBLOC 80SAH_12 Concrete Safety Barrier has passed crash testing to MASH TL 3 and TL 4, the barrier system when connected to approved terminals is not accepted at 100km/h.

Configuration:

- Units must be interconnected using patented couplings and requires a sufficient length to resist impact.

Design Considerations:

- Design to be in accordance with the document "Installation Instructions REBLOC® Precast Concrete Safety Barrier – REBLOC 80SAH_12 (TL3 / TL4)" – Version 2.2, dated 04/2022.
- The barrier is designed to resist loadings by deflection, so the units should be free to move. The barrier shall not be placed onto a mortar or a concrete blinding as this may overload the connections between the units.
- It is recommended that the barrier should as a minimum be offset from the edge of traffic lane by:
 - traffic speed 40 km/h or less - 0.2 m;
 - traffic speed 41 to 60 km/h - 0.3 m;
 - traffic speed 61 to 80 km/h - 0.5m.
- Barrier length must be sufficient to protect the hazard.
- Kerbing is not to be placed in front of the barrier.
- Kerbing should not be placed behind the barrier within the deflection limits of the system.
- Barrier shall not be placed on top of kerbing as this negates the effects of the profile.
- The approach to the barrier should be a trafficable running surface at a slope of 10% or flatter clear of objects and grade changes to allow an errant vehicle to hit the barrier at an appropriate height.
- When designing a REBLOC 80SAH_12 barrier the flare rates used shall be those for a rigid barrier, to minimise impact angles.

Minimum Length:

Lengths as crash tested (excluding terminals):

MASH TL 3 – minimum length = 108 m

MASH TL 4 – minimum length = 156 m

Terminals permitted:

SMART crash cushion

- The installation is restricted to a posted speed of 80 km/h or less.
- May only be installed where reverse impacts are highly improbable, and a risk assessment has been completed and steps undertaken to mitigate any risks identified.
- Terminal must be anchored by pins in accordance with the installation instructions in the product manual.
- The REBLOC 80SAH_12 barrier units adjacent to the crash cushion must be anchored to the pavement as required by the product manual.
- An accepted transition must be used to connect the terminal to the barrier.

Point of Redirection:

The point of redirection for MASH TL 3 conditions shall be the interface between the barrier and the end treatment.

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The point of redirection for MASH TL 4 conditions shall be 70.5 m from the leading end of the REBLOC 80SAH_12 barrier and 85.5 m from the trailing end of the REBLOC 80SAH_12 barrier.

Limitations:

- The use of REBLOC 80SAH_12 barrier is limited to work site situations and units shall be interconnected using the patented coupling.
- Objects should not be placed on top of the barrier as they are designed to move under impact. "Gawk" screens are not acceptable.
- The minimum radius that the REBLOC 80SAH_12 barrier can be installed on is 260 m.
- To be used where pavement consists of:
 - Minimum 140 mm thick reinforced or unreinforced concrete,
 - Minimum 140 mm thick asphalt over 150 mm basecourse.

For pavements not meeting these requirements design advice shall be sought from the Supplier.

- Anchoring details consist of 300 mm long Excalibur HSB 20/300 screwbolts.

Installation and Maintenance Requirements:

In accordance with the document "Installation Instructions REBLOC® Precast Concrete Safety Barrier – REBLOC 80SAH_12 (TL3 / TL4)" – Version 2.2, dated 04/2022.

Parts to be Replaced after Impact:

Units may need to be repaired after impact or replaced depending on the extent of damage.

Parts Typically Re-Useable after Impact:

Undamaged units.

References:

Refer to Main Roads file 22/7665.