

DB80 K150 CONCRETE SAFETY BARRIER - TEMPORARY

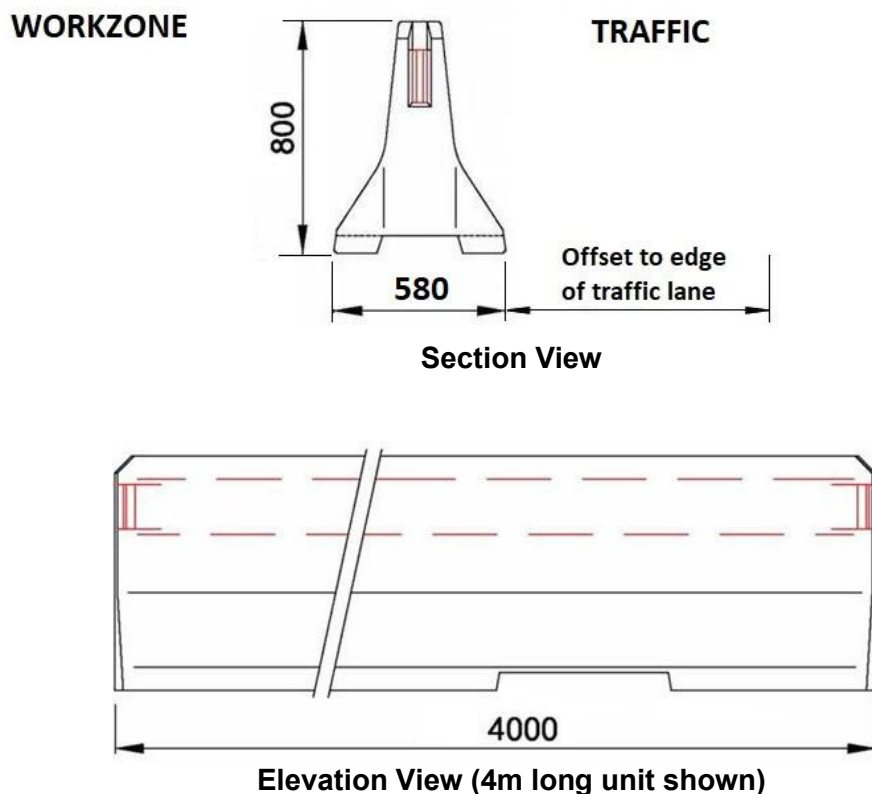
REVISION REGISTER

Revision	Description	Date
1	Issued for use.	16/01/2020
1A	Acceptance for connection to Quadguard CZ, TAU-II and SMART crash cushions added.	22/10/2020
1B	Update terminals, conditions and manual.	9/08/2021
1C	Supplier details updated	10/10/2024
1D	Installation Manual updated, TAU-XR terminal added, NCHRP 350 rated terminals removed, Safelink transition added, Zero Debris Concrete units added, and use of 2 m long units clarified.	20/03/2026
1E	Zero Debris Concrete variant clarified. Reference to other DB80 barriers added.	29/09/2026

DB80 K150 is a freestanding temporary concrete barrier (2, 4 and 6 metre long units) consisting of Type F shape steel reinforced concrete barrier units with a tension bar coupling system, joint rotation limiting wedges and without intermediate ground attachment.

DB80 T150S and DB80A T150S are temporary concrete barriers that are approved for use by Main Roads WA, with conditions under separate design sheets.

Drawings:



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Section and Joint Photographs



Photographs of joint wedges

Ownership:

Delta Bloc International GmbH
www.deltabloc.com

Supplier:

Jaybro Group Pty Ltd
29 Penelope Crescent
Arndell Park, NSW 2148
Ph 1300 885 364
www.jaybro.com.au

Test Level: Approved to MASH TL3.

Test Level	Test Description	Deflection	Working Width
MASH - TL3	2270 kg vehicle at 100 km/h 25° impact angle	1.44 m	1.94 m

Note that while the DB80 K150 Concrete Safety Barrier – Temporary has passed crash testing to MASH TL 3, the barrier system when connected to approved terminals are not accepted at 100 km/h

Configuration:

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

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Design Considerations:

- Design to be in accordance with the DB80 K-150 Portable Concrete Barrier Installation Manual Version 2025/01.
- 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 - 0.5 m.
- 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 7% or flatter clear of objects and grade changes to allow an errant vehicle to hit the barrier at an appropriate height.
- When designing a DB80 K150 barrier the flare rates used shall be those for a rigid barrier, to minimise impact angles.

Minimum Length:

60 m excluding terminals.

Terminals permitted:

1. 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 DB80 K150 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.

2. TAU-M & TAU-XR crash cushions

- 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 DB80 K150 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.

3. ABSORB-M

- The installation is restricted to a design speed of 80km/h or less (i.e. posted at 70 km/h or less).

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- The ABSORB-M transition to DB80 K150 Barrier must be used to connect the terminal to the barrier.
- Permitted as a terminal on a flare.

4. SLED End Terminal

- The installation is restricted to a design speed of 80km/h or less (i.e. posted at 70 km/h or less).
- The SLED transition to DB80 K150 Barrier must be used to connect the terminal to the barrier.
- Permitted as a terminal on a flare.

The following terminals are no longer accepted.

- Quadguard CZ
- TAU-II crash cushion
- ABSORB 350

Point of Redirection:

The point of redirection shall be at the nose of the pinned crash cushion, at both ends; or if the trailing end doesn't form a hazard and does not include a pinned crash cushion, then 32.5 m upstream of the trailing end.

If an ABSORB-M or SLED End Terminal is used then the point of redirection shall be 29.2 m from the leading or trailing end, not including the terminals.

Limitations:

- The use of DB80 K150 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 DB80 K150 barrier can be installed on is 80 m using 4 m units, and 120 m using the 6 m units.
- The use of 2 m units is restricted to tight radius curves and emergency openings. Where 2 m units are used the posted speed should be restricted to a design speed of 60 km/h or less (posted at 50 km/h or less) – Refer Austroads Technical Advice SBTA-23-002.
- Zero Debris Concrete units are available. These are permitted to be connected to standard DB80 K150 units.
- May be connected to DB80 T150S units using the Safelink transition. If connected, the full barrier run is only considered to be MASH TL 3.

Installation and Maintenance Requirements:

In accordance with the DB80 K-150 Portable Concrete Barrier Installation Manual Version 2025/01.

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 09/518.