DB80 T150S CONCRETE SAFETY BARRIER - TEMPORARY

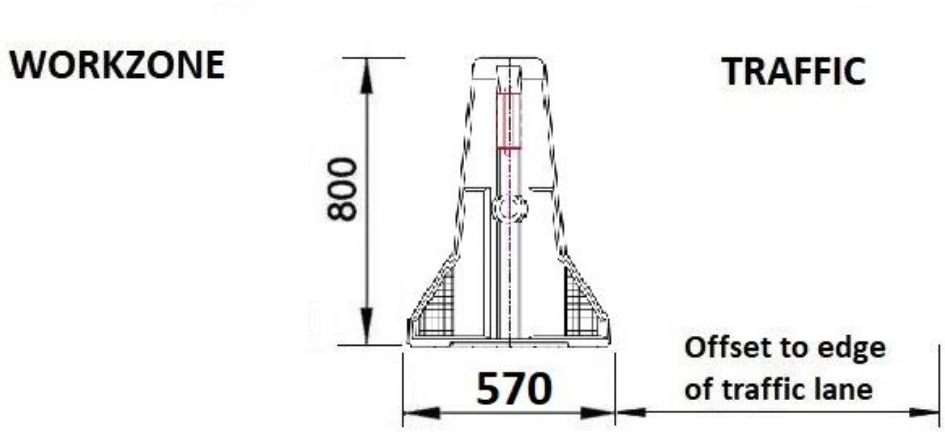
REVISION REGISTER

Revision	Description	Date
1	Issued for use.	25/10/2022
1A	Supplier details updated	10/10/2024
1B	Installation Manual updated, TAU-XR terminal added, Safelink transition added, Zero Debris Concrete units added, and use of 2 m and 4 m long units clarified.	20/03/2026

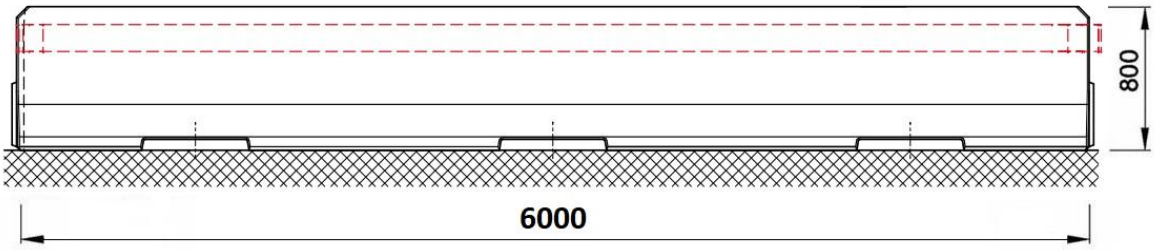
DB80 T150S is a freestanding temporary concrete barrier (2, 4 and 6 metre units) that must be anchored at each end. DB80 T150S consists of Type F shape steel reinforced concrete barrier units with a tension bar coupling system and without intermediate ground attachment.

DB80 K150 is a freestanding temporary concrete barrier, which has a different joint system. It is approved for use by Main Roads WA, with conditions under a separate design sheet.

Drawings:



Section View



Elevation View (6m long unit shown)

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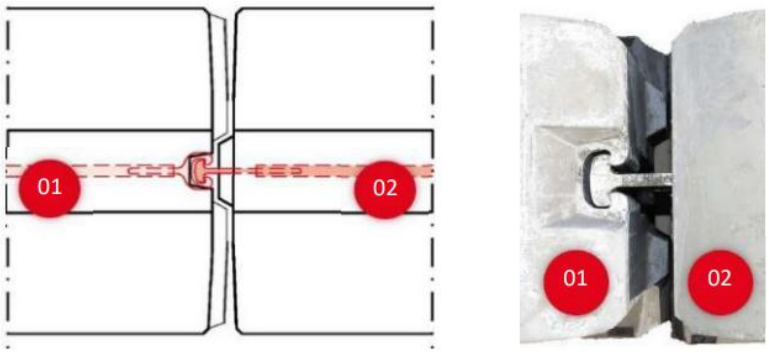
Photograph of DB80 T150S Units



Images of DB80 T150S Joints

Ownership:
Delta Bloc International GmbH

Supplier:
Jaybro Group Pty Ltd
29 Penelope Crescent
Arndell Park, NSW 2148
Ph 1300 885 364
www.jaybro.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 100 km/h 25° impact angle	0.81 m	1.36 m
MASH – TL 4	10000 kg vehicle at 90 km/h 15° impact angle	0.81 m	2.50 m

Note that while the DB80 T150S 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 100 km/h.

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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 DB80 T-150S 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 - 0.5m.
- 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 DB80 T150S barrier the flare rates used shall be those for a rigid barrier, to minimise impact angles.

Minimum Length:
92 m excluding terminals.

Terminals permitted:

1. <u>TAU-M & Tau-XR crash cushions</u>
   - 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 T150S 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. <u>Quadguard M10 CZ crash cushion</u>
   - 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 T150S 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.

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

The point of redirection for MASH TL 4 conditions shall be 32.3 m from the leading end of the DB80 T150S barrier and 59.7 m from the trailing end of the DB80 T150S barrier.

Limitations:

- The use of DB80 T150S 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 T150S barrier can be installed on is 135 m using the 6 m units.
- The use of 2 m and 4 m units is restricted to tight radius curves and emergency openings. Where 2 m units or 4 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 not permitted to be connected to standard DB80 T150S units.
- May be connected to DB80 K150 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 T-150S 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 19/1578.