


# Safety Barrier Technical Conditions for Use

## DEFENDER 100 FS

	<b>Issue Date:</b> 29 October 2018	<b>Proponent:</b> Safe Barriers Pty Ltd
	<p><b>These conditions take precedence over any instructions in the Product Manual.</b></p> <p>This document is a summary of the Austroads Safety Barrier Assessment Panel's assessment of the technical performance of the product against AS/NZS 3845 Parts 1 or 2 only. It does not consider procurement practices by individual Road Agencies.</p> <p>The Austroads Safety Assessment Panel may at any time, withdraw or modify this Technical Conditions for Use without notice.</p> <p>These acceptance conditions should be read in conjunction with the Product Manual and Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers.</p> <p>Acceptance of this product does not place any obligation on the Northern Territory Government or its contractors, to purchase or use the product.</p>	

Status	<b>Recommended for Acceptance</b>
Product accepted	DEFENDER 100 FS  Variants that are NOT listed are NOT recommended for acceptance.
Product manual reviewed	D100FS-M-1804 September 18 V1.2
Product manual	<a href="https://www.safebarriers.com/wp-content/uploads/2018/12/D100FS-M-1804-Installation-Manual-V1.2.pdf">https://www.safebarriers.com/wp-content/uploads/2018/12/D100FS-M-1804-Installation-Manual-V1.2.pdf</a>

### Design Requirements

Containment level	Accepted speed (km/h)	Vehicle mass (kg)	Point of redirection (m)		Minimum length (m)	Anchor/post spacing (m)	Dynamic deflection (m)	Working width (m)	Notes/Conditions
			Leading	Trailing					
MASH Test Level 3	100	2270	66.3	66.3	156	NA	1.9	2.58	When used with a Universal TAU-II the point of redirection is at the nose of the crash cushion.  Deflection is measured from the outer edge of the foot.

### Approved Connections

<b>Crash Cushions or Terminals must be fitted to both ends of a barrier</b>	
<b>Public Domain Products</b>	
W-Beam Guardrail	Not permitted
Thrie-Beam Guardrail	Not permitted
Temporary Concrete Type F	Not permitted
<b>Proprietary Products</b>	
UNIVERSAL TAU-II Crash Cushion	<ul style="list-style-type: none"> <li>See UNIVERSAL TAU-II Crash Cushion acceptance document for conditions of use.</li> <li>The manufacturer's recommendation must be used to connect the terminal to the barrier.</li> <li>Not permitted as a terminal on a flare.</li> </ul>

Design Guidance

<b>This product must be installed and maintained in accordance with the Product Manual and Road Agency specifications. Road Agency specifications and standards shall have precedence.</b>	
System width (m)	0.68 metres
Minimum distance to excavation	1.9 metres
Slope limit	Side slope limit: 10 Horizontal to 1 Vertical (10%).
Systems conditions	<ol style="list-style-type: none"> <li>1. Installation on top of a kerb is not recommended, however if installed on top of a kerb, all system components must be free to operate.</li> <li>2. Flaring across the clear zone without a terminal listed below is NOT permitted.</li> <li>3. Each Defender 100 FS barrier unit requires the installation of three (3) Ballast Boxes which are filled with concrete. Ballast Box washers shall be clearly identifiable for ease of inspection.</li> </ol>
Gore area use	Permitted
Pedestrian area use	Permitted – consider potential for snagging and deflection
Cycleway use	Permitted – consider potential for snagging and deflection
Frequent impact likely	Permitted
Remote location	Permitted
Median use	Permitted

Foundation Pavement Conditions					
Pavement	Use	Accepted Speed (max)	Post/pin spacing (m)	Post/pin type	Pavement construction
Concrete	Permitted	100 km/h	<p style="text-align: center;"><u>Freestanding</u></p> <p>Foundation pavement conditions must be smooth and free of snag points, kerbs or obstructions that may interfere with the operation of the product</p>		
Deep lift asphaltic concrete	Permitted	100 km/h			
Asphaltic concrete over granular pavement	Permitted	100 km/h			
Flush seal over granular pavement	Permitted	100 km/h			
Unsealed compacted formation	Not Permitted				
Natural surface	Not Permitted				

**Note: Installation in pavement conditions not listed above have not been justified to the Panel's satisfaction.**