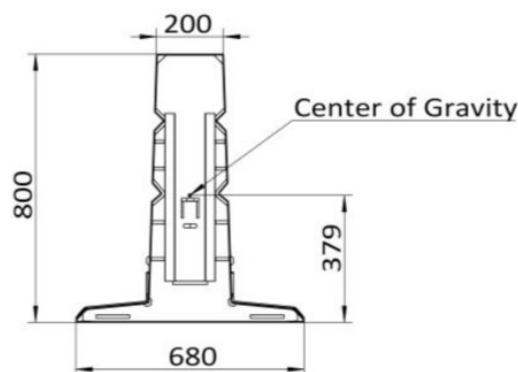


DEFENDER 70 STEEL BARRIER SYSTEM



SUMMARY

SUPPLIER:	Safe Barriers Pty Ltd. (http://www.safebarriers.com)
TEST LEVEL / CONDITIONS:	MASH TL2
PRODUCT MANUAL	click for product manual

The Defender 70 Steel Barrier System is a free-standing, ballasted, temporary steel barrier system comprising 3.96m sections fabricated from galvanised steel. The individual units are ballasted using 3 concrete-filled ballast boxes per unit which are mandatory for compliance. The units are joined using a proprietary connection system with the ends being protected by the use of an accepted temporary crash cushion.

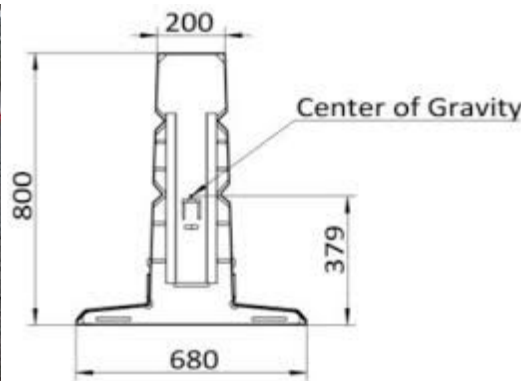
The system has been tested in accordance with MASH Test Level 2 (2270kg pick-up impacting at 70km/h at 25°) and was accepted by the Austroads Safety Barrier Assessment Panel (ASBAP) on 6 December 2017.

In-service impact deflection in excess of the test values indicated below must be allowed for in any temporary traffic management plan utilising the Defender 70 Steel Barrier System. All relevant minimum requirements of CoPTTM in regard to working spaces and safety zones must be met irrespective of the variant in use, in particular the test level of the system must meet or exceed the test level required for the operating speed of the adjacent traffic (refer CoPTTM B12.1).

TECHNICAL INFORMATION

DIMENSIONS	3.96m length unit 680mm width (base), 800mm height
MINIMUM LENGTH	105m (freestanding)
GRADE OR PLACEMENT RESTRICTIONS	May be placed on concrete, asphaltic concrete or chipseal surfaces. May not be used on unbound/unsealed surfaces.
DEFLECTION	1.2m (measured from outer edge of foot on workzone side of barrier)
WORKING WIDTH	1.88m (measured from outer edge of foot on workzone side of barrier)
ANCHOR POINT SPACING	Not applicable (freestanding system)
MINIMUM DISTANCE TO EXCAVATION	1.2m (to be measured from outer edge of foot on workzone side of barrier)
FLARE RATE	15V:1H for speed 100 km/h 10V:1H for speed 70 km/h 11V:1H for speed 80 km/h NOTE: Flare rates above apply inside the shyline. Refer to Austroads Guide to Road Design Part 6, section 6.3.16

DEFENDER BARRIER 100 STEEL SAFETY BARRIER (FS, HC & LDS VARIANTS)



SUMMARY	
SUPPLIER:	Safe Barriers Pty Ltd. (http://www.safebarriers.com)
TEST LEVEL / CONDITIONS:	100 FS - MASH TL3 100 HC – MASH TL3 & TL4 100 LDS – MASH TL3
PRODUCT MANUAL	click for product manual

The Defender 100 Steel Safety Barrier (FS, HC and LDS variants) is a steel safety barrier system manufactured from hot dip galvanised steel and are intended for use as a temporary barrier system.

The FS (Free-standing) variant is not anchored to the road surface, but utilises anchored crash cushions at either end of the installed length. For the HC (High Containment) variant, that anchoring is every 48.15m. For the LDS (Low Deflection System) variant, the barrier is anchored to the road surface every 9.15 metres.

The secure connection of the Defender units is made by interlocking the Male and Female end units together with the insertion of a connection pin to secure each unit in place. The cross section of the unit is detailed above and consists of a 680mm width base with an 800mm height.

TECHNICAL INFORMATION	
DIMENSIONS	3959mm length unit (3900mm effective length) 680mm width (base), 820mm height
MINIMUM LENGTH	FS variant - 156m HC variant - 97.5m with anchors at 48.15m spacing LDS variant – 78m with anchors at 9.15m spacing
GRADE OR PLACEMENT RESTRICTIONS	Pinned variants are suitable for pavements with a minimum thickness of 300mm (150mm AC over compacted granular sub base), where anchoring shall consist of 500 mm long by 30 mm diameter pins.
DEFLECTION	100 FS variant 1.9m at 100 km/h (MASH TL-3, 2270kg at 25°) (measured from outer edge of foot on workzone side of barrier) 100 HC variant 2.30m at 100 km/h (MASH TL-3, 2270kg at 25°) (measured from outer edge of foot on workzone side of barrier) 2.47m at 100 km/h (MASH TL-4, 10,000kg at 25°) (measured from outer edge of foot on workzone side of barrier) 100 LDS Variant 0.88m at 100 km/h (MASH TL-3, 2270kg at 25°) (measured from outer edge of foot on workzone side of barrier)
WORKING WIDTH	100 FS variant – 2.58m (TL-3) 100 HC variant – 2.98m (TL-3) 3.31m (TL-4) 100 LDS variant – 1.56m (TL-3)
ANCHOR POINT SPACING	HC System – 48.15m maximum spacing (every 12th barrier) LDS System - 9.15m maximum spacing (every second barrier)

