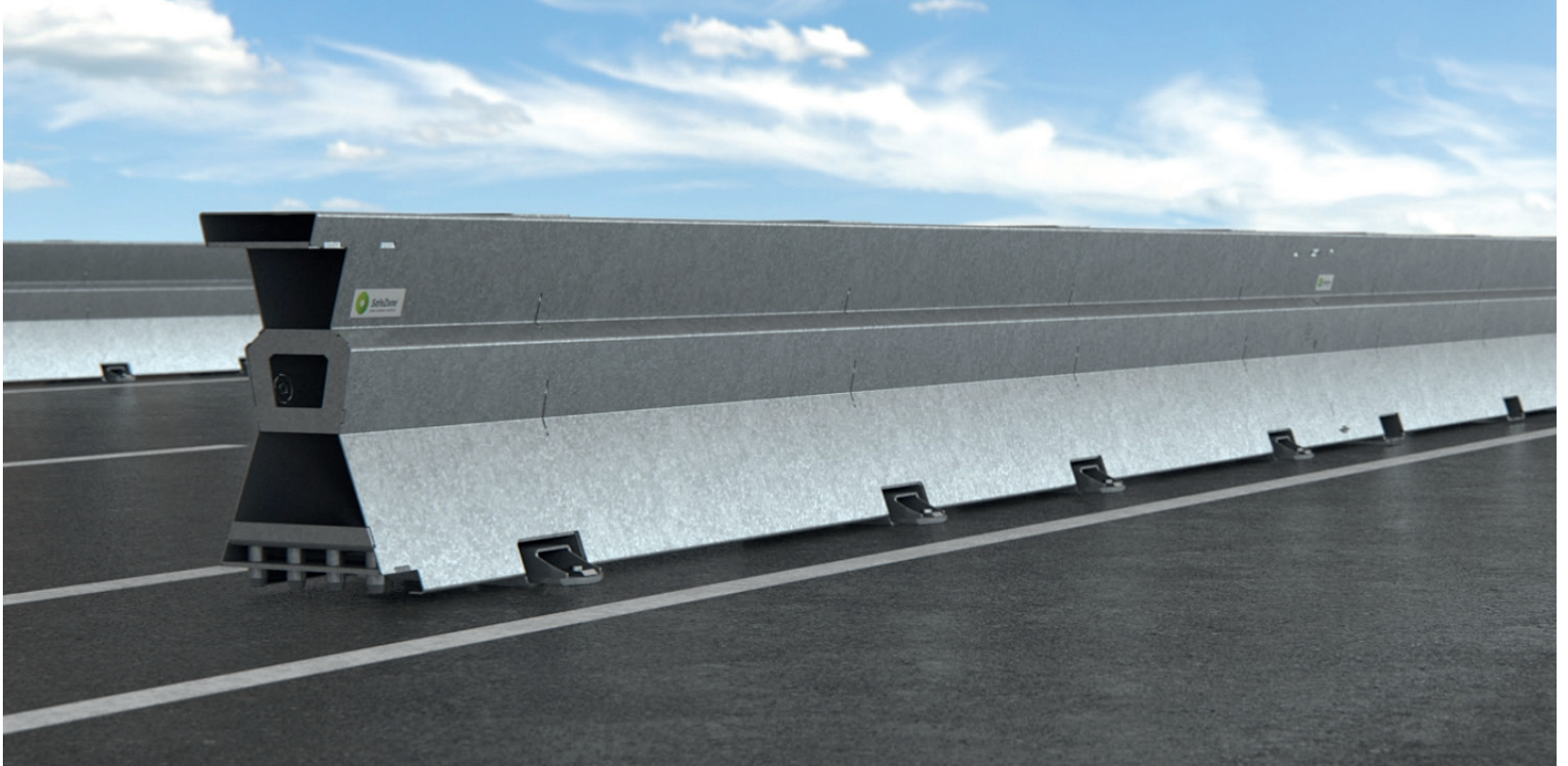


Technical Product Datasheet SafeZone™



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1.1. General

SafeZone™ is a rapidly deployable Steel Safety Barrier conforming to American Association of State Highway and Transportation Officials (AASHTO) Manual for Assessing Safety Hardware (MASH) test standards.

SafeZone™ is a smooth faced modular vehicle restraint system, anchored to the ground at the end of each run or at intermediate anchor points along its length as required to meet the performance characteristics specified. It consists of single elements of prefabricated 19.0 ft (5.8 m) long steel barrier. Two elements are bolted together at the factory providing 38.0 ft (11.6m) long sections with male and female QuickMount connectors to facilitate speedy erection on site. Connection is achieved by simply lining up the barrier and locking the QuickMount connectors together. The permissible length of the system is unlimited as the barrier attains its performance characteristics by a combination of torsional rigidity, anchoring and/or self-weight. SafeZone™ should only be installed where the cross fall is 8%/3.6° or flatter. Any steeper transverse angles may prevent the system from performing as designed. The minimum length of need (MLON) for the SafeZone Standard System is 228.45 ft. (69.63 m). This is the minimum length needed to comply with the manufacturer's test. The closed design of the barrier protects the vulnerable road users because there is no chance of constriction under or between the barrier.

The design features of the SafeZone™ enable it to be deployed as either a single or double sided barrier. One factor to be taken into consideration is the Working Width (or deflection) of the system.

1.2. Deflection chart

Model	Dynamic Deflection	Dynamic Working Width	Length of need	Anchorage
SafeZone TL3 Standard	1.70 m	2.06 m	69.63 m	every 69.6 m
SafeZone TL3 Limited Deflection	0.61 m	1.06 m	40.62 m	every 11.6 m
SafeZone TL4 Standard	2.07 m	2.96 m	69.63 m	every 69.6 m
SafeZone TL4 Limited Deflection	0.85 m	2.17 m	40.62 m	every 11.6 m

1.3. Deflection table TL3 Standard

Speed [km/h]	Impact angle [degrees]				
	25	20	15	10	5
100	1700*	1435	1165**	820	400**
90	1499	1337	1088	752	327
80	1361	1223	994	674	265
70	1217**	1091	882**	588	211**
60	1064	943	753	494	165
50	904	778	607	390	129
40	737**	596	443**	278	102**

* ITT test value
 ** Simulation value
 Other: interpolated value

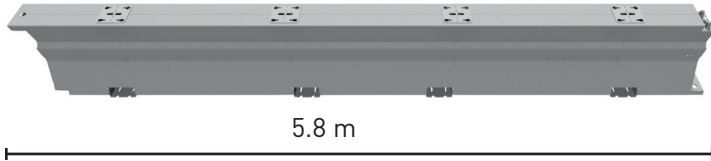
All values are in mm.

1.4. Table of curvatures

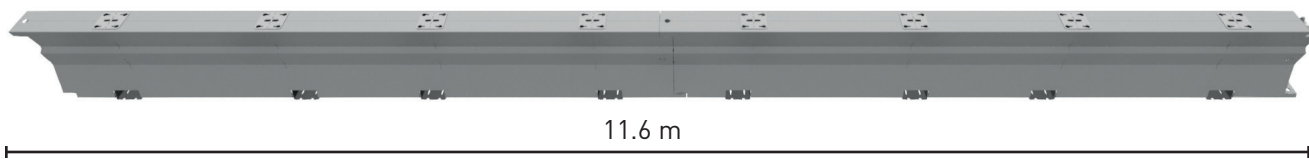
Method	Description	Max. Angle °	Radius (comment)
1	Movement on Quick Connect	0.63	minimum radius using only standard barriers: 528.0 m
2	5 degree angle piece	5.0	
3	10 degree angle piece	10.0	minimum radius achievable using only 10° angle pieces: 11.2 m

Depending on the arclength any radius between 11.2 m - ∞ can be achieved using the parts in the table above. For job specific analysis contact your supplier.

2.0 Common Components List



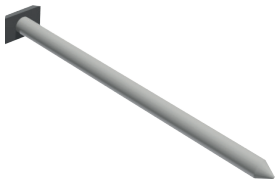
SafeZone 19.0ft [5.8m] section, male/female QuickLink (AS31840000)



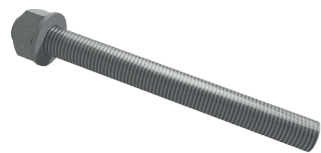
SafeZone 11.6 m section, male/female QuickLink, a unit



SafeZone anchor shoe (AS31840020)



SafeZone Flat top pin (AS31642592)

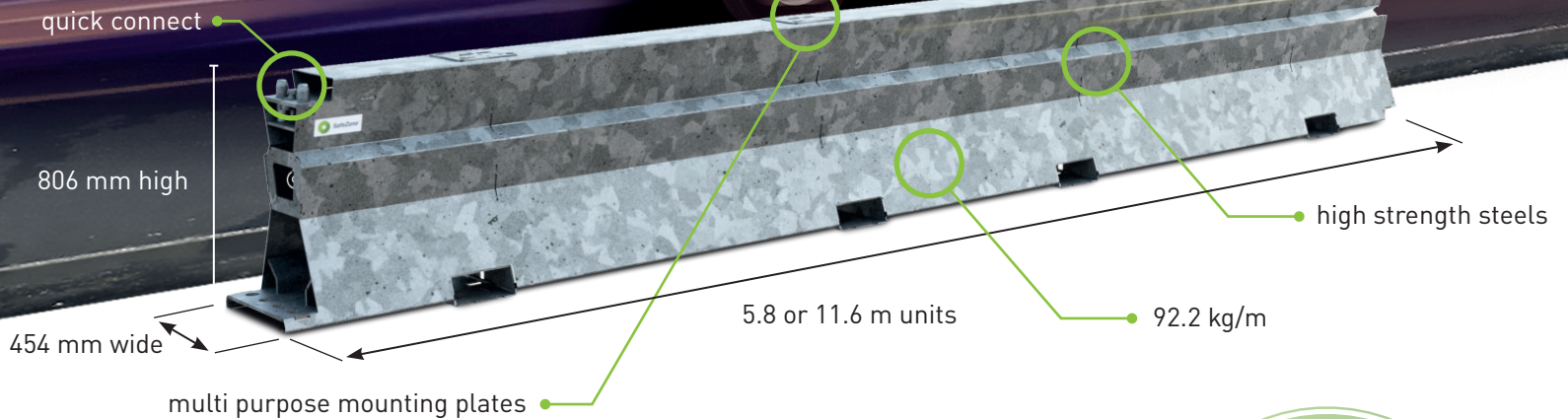


SafeZone Threaded rod (KE31840030)

SafeZone™ with a crash cushion end treatment. Transition should be fitted prior to the Crash Cushion installed. Per the manufacturer's guidelines.

All M20 bolts to be used for connecting sections of SafeZone together to be at least grade 8.8. torque: 300 Nm (200 ft-lb).

Designed to protect.



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