



# mFlex Single Traffic Guardrail Ground Level

Designed to safeguard walls, structures, goods and machinery from hand operated equipment and the wear-and-tear of frequent low energy impacts at near-ground level.

Such impacts can damage surfaces, materials and stock over time, degrading safety and causing equipment to break down.

This light duty guardrail keeps vehicles and their loads on a required route, preventing them from encroaching into protected areas.





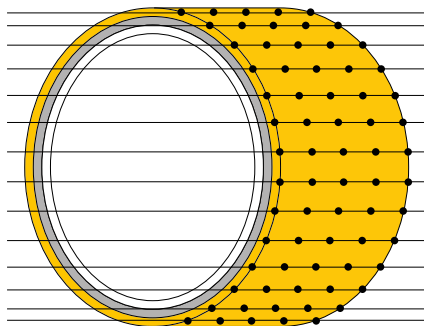
## MEMAPLEX™

### Ultimate strength polymer

created from an exclusive composition of the most sophisticated polyolefins and rubber additives, expertly blended for unequalled strength and flexibility.

### Advanced Engineering Molecular

reorientation during manufacturing creates a unique built-in memory that enables the guardrail to fully recover following impacts.



### Revolutionary 3-Layered Material

- Inner strengthening core
- Central impact absorption zone
- Outer UV stabilised colour layer



## Energy Absorption System

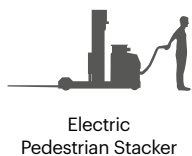
A patented 3-phase system that activates sequentially for unparalleled energy absorption.

- 1 Memaplex™ rail flexes to absorb impact, initiating the rail pin to slide forward and transfer load energy to the compression pocket.
- 2 Compression of the pocket continues to disperse energy as the coupling rotates around the post pin to activate further absorption.
- 3 At peak energy, the coupling twists further, engaging the post pin and instigating torsion of the post to dispel remaining forces.

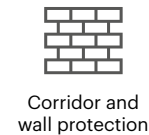
- |                   |                             |
|-------------------|-----------------------------|
| <b>A</b> Post Pin | <b>D</b> Compression Pocket |
| <b>B</b> Coupling | <b>E</b> Rail               |
| <b>C</b> Rail Pin |                             |

## Suitability

Vehicle



Application



Unrivalled recovery through a unique built-in memory that allows the guardrail to flex, cushion and reform repeatedly upon impact, saving vast amounts in guardrail and vehicle repairs.

Huge return on investment from incident prevention and downtime avoidance as guardrails, vehicles, floors and equipment do not need replacing or repair.

## Features and benefits



Ultra-low maintenance material is chemical and water resistant, non-corrosive, non-scratch and self coloured so no repainting, rusting, flaking or corrosion.



Exclusive modularity allows rails and posts to be replaced in-situ without removing adjacent guardrail sections.



Seals reduce the risk of water ingress.



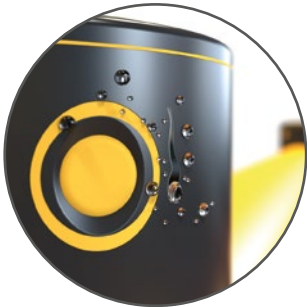
Zinc nickel, electrophoretic coating on base plates as standard, provides advanced protection against corrosion damage.



Self colored and UV stabilised for continued visibility and long lasting aesthetics with no repainting.



No floor damage 80% of impact force is absorbed, transferring just 20% to the floor.



Wipe-clean, water resistant surface.



Ergonomic design with no sharp edges.

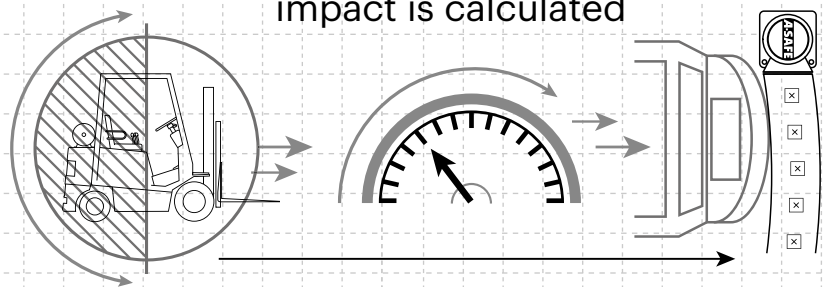


Environmentally friendly and 100% recyclable.



# Technical Information

How the energy from a vehicle impact is calculated



$$\frac{1}{2} \text{ Mass} \times \text{Speed}^2 = \text{Joules}$$

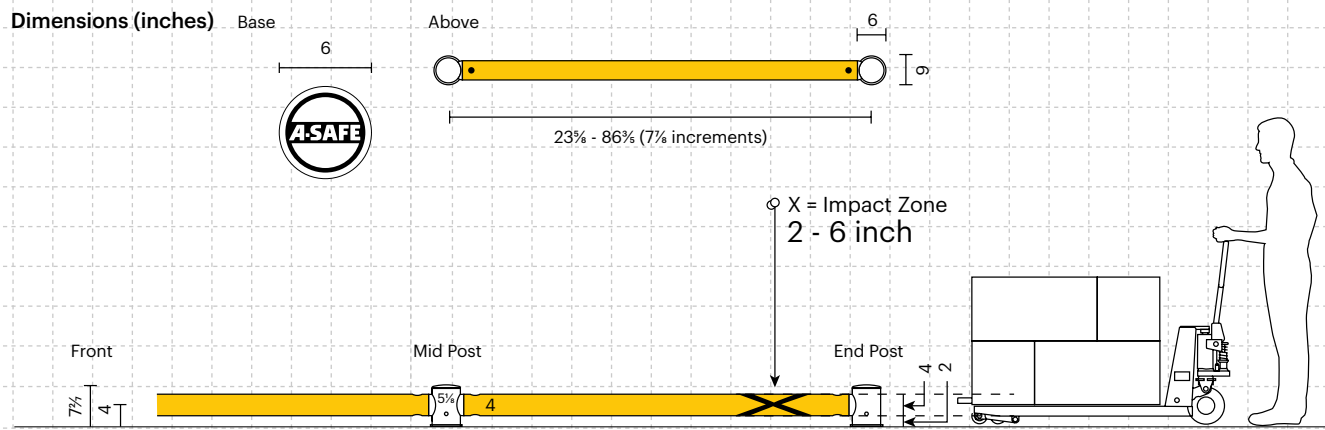
**Tested Impact Energy**

**5,400 Joules**

Equivalent vehicle and speed

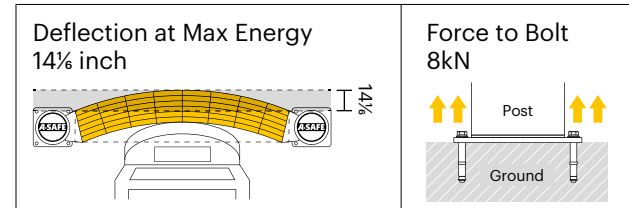
**2.4 Ton** X **5 mph impact**

Mid Rail 45° Impact on 59 inch Post Centres



Impact Test	Impact Angle on 59 inch Post Centres			
	90°	67.5°	45°	22.5°
Mid Rail Max Energy (Joules)	2,700	3,163	5,400	18,437

End Post Max Energy (Joules) - 90°	3,000
Mid Post Max Energy (Joules) - 90°	3,000

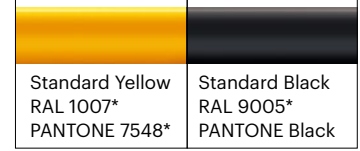


Material Properties	MEMAPLEX™
Temperature Range	14°F to 122°F
Ignition Temperature	698°F to 734°F
Flash Point	662°F to 698°F
Toxicity	Not Hazardous
Chemical Resistance	Excellent - ISO/TR 10358
Weathering Stability (Grey Scale)	5/5*
Light Stability (Blue Wool Scale)	7/8**
Static Rating (Surface Resistivity)	1015 - 1016 Ω

## Post Options



## Rail Options



## Colour Combinations

\*Please note that the RAL and PANTONE colours listed are the closest match to standard A-SAFE colours, but may not be exact matches of the actual product colour and should be used for guidance only.

\* Weathering scale 1 is very poor and 5 is excellent  
 \*\* Light stability scale 1 is very poor and 8 is excellent

