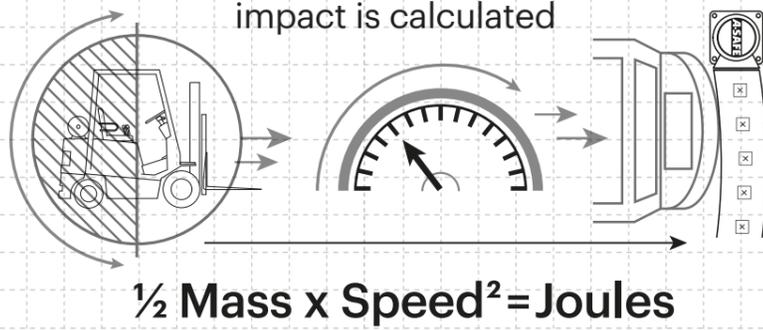


# Technical Information

How the energy from a vehicle impact is calculated



Tested Impact Energy

**41,000 Joules**

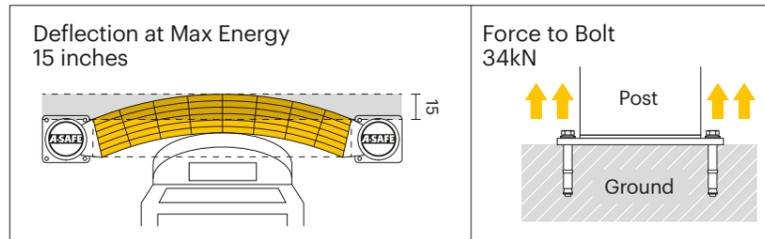
Equivalent vehicle and speed



Mid Rail 45° Impact on 78 1/4 inch Post Centers

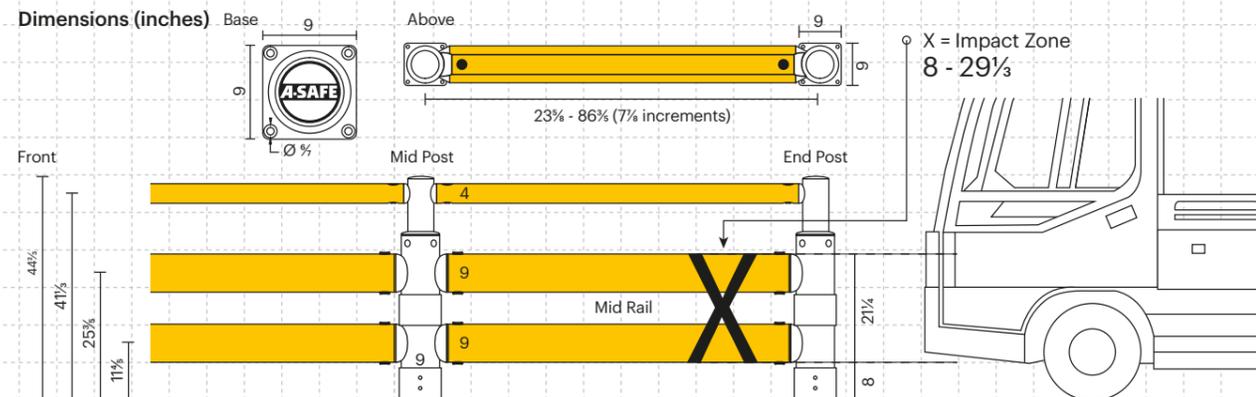
Impact Test	Impact Angle on 78 1/4 inch Post Centers			
	90°	67.5°	45°	22.5°
Mid Rail Max Energy (Joules)	20,500	24,017	41,000	139,983

End Post Max Energy (Joules) - 90°	6,900
Mid Post Max Energy (Joules) - 90°	6,900



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
Hygiene Seals	Yes

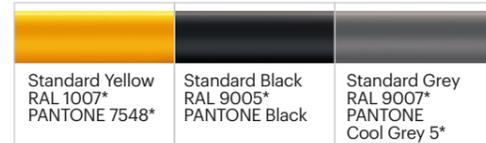
\* Weathering scale 1 is very poor and 5 is excellent  
\*\* Light stability scale 1 is very poor and 8 is excellent



### Post Options



### Rail Options



### Color Combinations

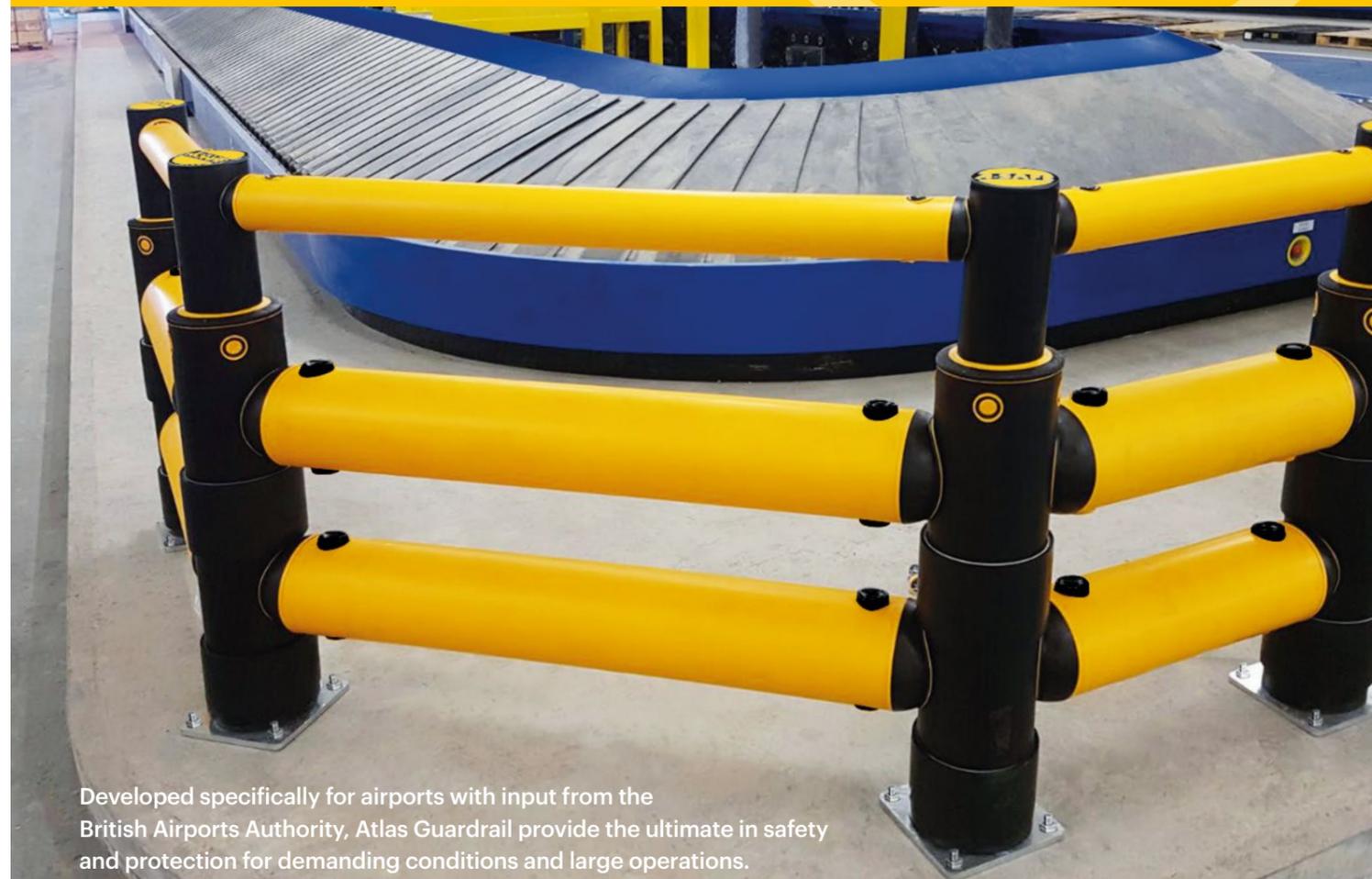
\*Please note that the RAL and PANTONE colors listed are the closest match to standard A-SAFE colors, but may not be exact matches of the actual product color and should be used for guidance only.



Atlas™

Double Traffic Guardrail+

A-SAFE



Developed specifically for airports with input from the British Airports Authority, Atlas Guardrail provide the ultimate in safety and protection for demanding conditions and large operations.

Designed to be highly resilient to the toughest of climates and with the strongest tolerance to impact damage, this dual-function solution physically segregates and shields walkways from vehicles to keep pedestrians safe and out of danger.

Able to withstand repeated impacts from the largest of workplace vehicles, Atlas Guardrails are ideal for any heavy-duty environment requiring unrivalled safety.



# Engineered for performance

Whether in the resilience, flexibility and in-built memory of our exclusive Memaplex™ material or the unrivalled energy absorption of our unique 3-phase coupling system, a wealth of technical ingenuity goes into every A-SAFE product to ensure that it performs perfectly every time you need it to. We are continuously innovating to solve the greatest workplace safety challenges on behalf of our customers and our numerous patents attest to our industry-leading commitment to research and development.

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

**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.

**Multi-directional system** ensures a streamlined fit into any operation and the removal of hard angles.

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

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

**Energy Absorption System**  
Patented system dissipates impact forces through the guardrail and away from floors and fixings, preventing costly damage.

**Advanced Engineering**  
Molecular reorientation during manufacturing creates a unique built-in memory that enables the barrier to fully recover following impacts.

**Revolutionary 3-Layered Material**

- Inner strengthening core
- Central impact absorption zone
- Outer UV stabilized color layer

**Hygiene seals** prevent the ingress of dirt and debris.

**Water resistant** wipe-clean, food safe surface.

**Ergonomic design** with no sharp edges.

**Environmentally friendly** and 100% recyclable.

**Rotating wear collars** deflect force from repeat glancing blows preventing expensive on-going maintenance costs.

**Self colored and UV stabilized** 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.

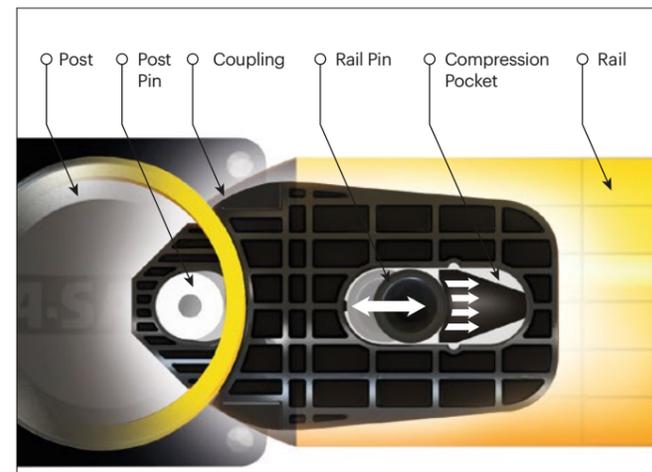
**ADDITIONAL BASE OPTIONS**

- Galvanized Steel**  
Increased weather resistance for outdoor use and harsh climate environments.
- Stainless Steel 316 Standard**  
Ultimate performance option, no corrosion or rusting and resistant to powerful cleaning agents. Ideal for hygiene environments.
- Stainless Steel 316 Countersunk**

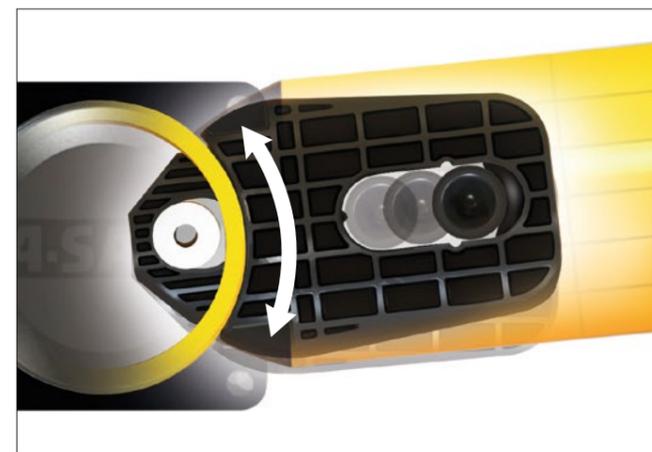
**Heavy Duty Self-Undercutting Anchors** create a durable mechanical interlock with flooring, giving exceptional pull-out resistance under extreme force impacts.

## Energy Absorption System

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



**PHASE 1:** Memaplex™ rail flexes to absorb impact, initiating the rail pin to slide forward and transfer load energy to the compression pocket.



**PHASE 2:** Compression of the pocket continues to disperse energy as the coupling rotates around the post pin to activate further absorption.



**PHASE 3:** At peak energy, the coupling twists further, engaging the post pin and instigating torsion of the post to dispel remaining forces.