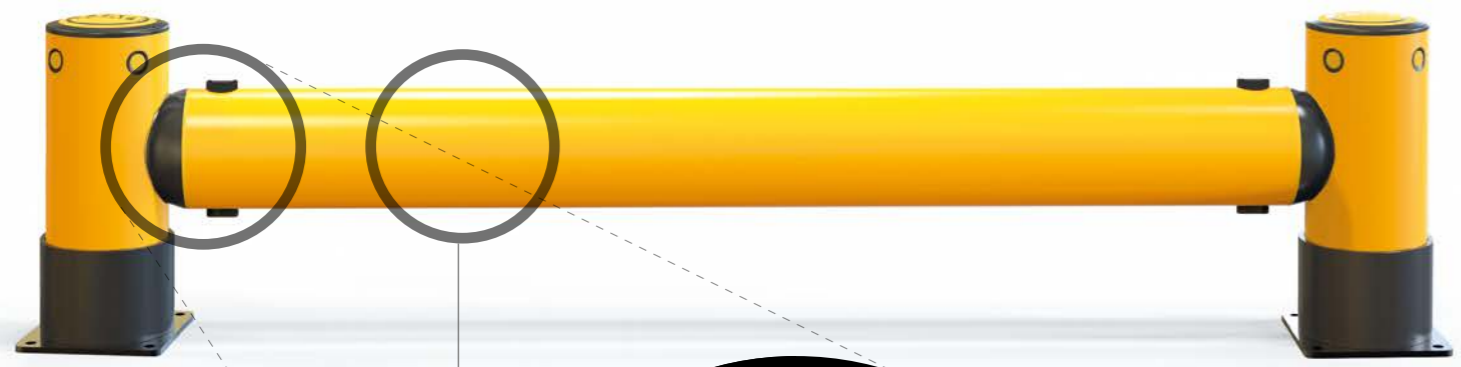# iFlex Single RackEnd Barrier

Designed to protect the end of racking aisles where turning vehicles and equipment can impact vulnerable racking structures.

This RackEnd barrier provides heavy duty protection to shield racking systems from high impact accidents and prevent damage.

The circular end posts provide enhanced protection at the barrier ends which are most susceptible to impact. Innovative spinning collars further deflect and dissipate impact forces.

Tested to the global benchmark in barrier safety

bsi. PAS 13
Code of Practice for Workplace Safety Barriers

A-SAFE
PIONEERING WORKPLACE SAFETY

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 barrier to fully recover following impacts.
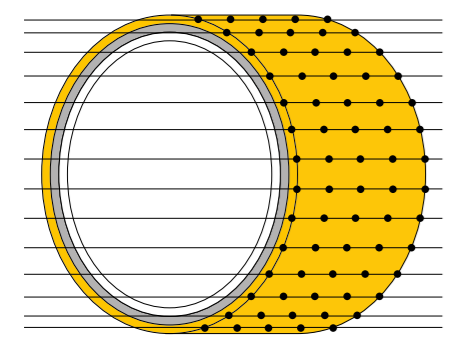
Revolutionary 3-Layered Material
• Inner strengthening core
• Central impact absorption zone
• Outer UV stabilised colour layer

Suitability

Vehicle

Heavy duty counterbalance FLT

High rack stacker

Electric high reach truck

Horitzontal Order Picker

Application

Racking Protection

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.

A Post Pin   **D** Compression Pocket
B Coupling   **E** Rail
C Rail Pin
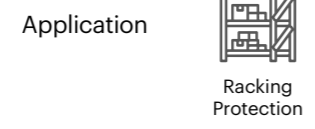
Unrivalled recovery through a unique built-in memory that allows the barrier to flex, cushion and reform repeatedly upon impact, saving vast amounts in barrier and vehicle repairs.

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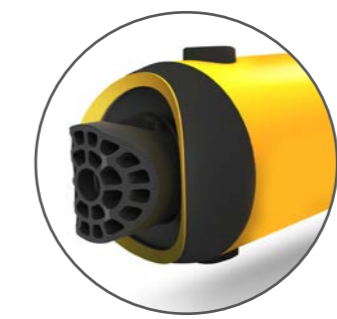
Features and benefits

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

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

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

Hygiene seals remove ingress points.

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

Self coloured 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.
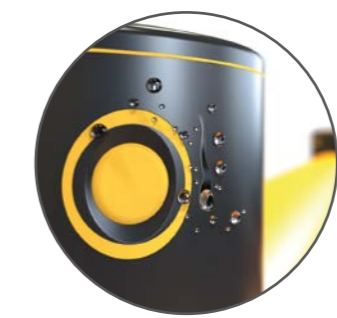
Food safe, wipe-clean, water resistant surface.
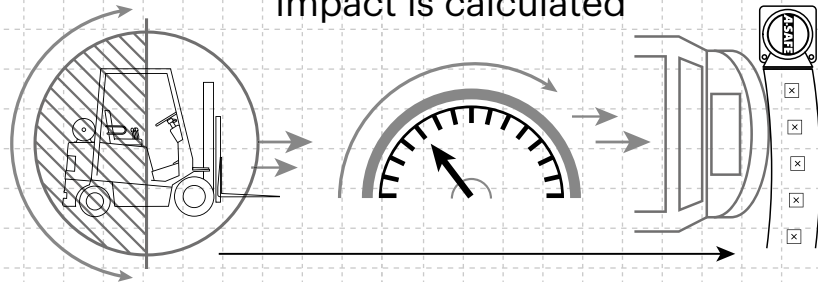
Ergonomic design with no sharp edges.

Environmentally friendly and 100% recyclable.

Technical Information

How the energy from a vehicle impact is calculated

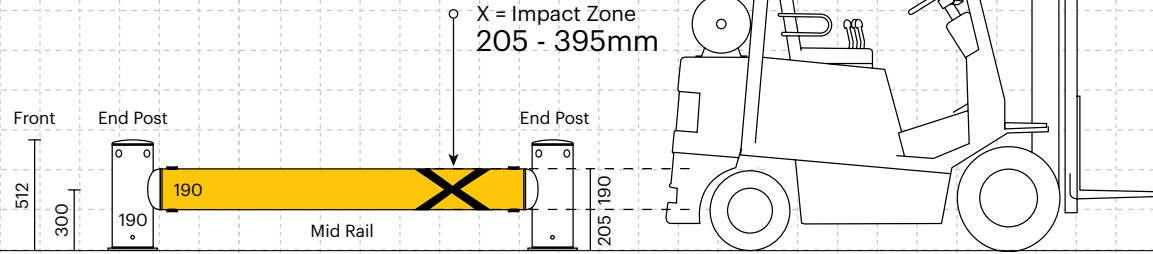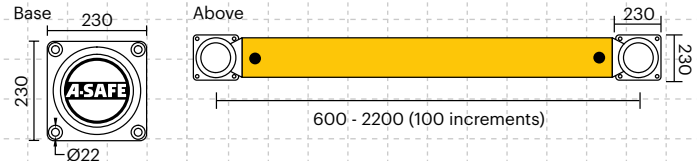$$\tfrac{1}{2}\text{ Mass} \times \text{Speed}^2 = \text{Joules}$$

Tested Impact Energy

30,200 Joules

Equivalent vehicle and speed

12.1 tonne X **8 km/h impact**

Mid Rail 45° Impact on 2000mm Post Centres

Dimensions (mm)

Base — 230 × 230 — Ø22

Above — 230, 230 — 600 - 2200 (100 increments)

X = Impact Zone 205 - 395mm

Front — 512, 300

End Post — 190, 190

Mid Rail — 190, 205 - 190

Impact Test	Impact Angle on 2000mm Post Centres			
	90°	67.5°	45°	22.5°
Mid Rail Max Energy (Joules)	15,100	17,691	30,200	103,109

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

Deflection at Max Energy 430mm — 430

Force to Bolt 24kN — Post — Ground
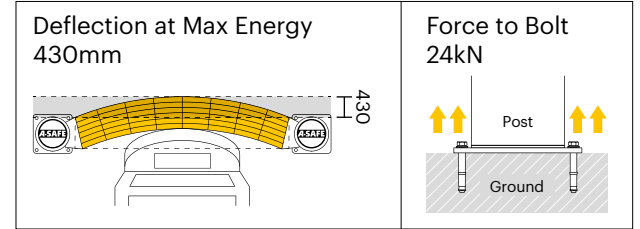
Material Properties	MEMAPLEX™
Temperature Range	-10°C to 50°C
Ignition Temperature	370°C to 390°C
Flash Point	350°C to 370°C
Toxicity	Not Hazardous
Chemical Resistance	Excellent - ISO/TR 10358
Weathering Stability (Grey Scale)	5/5*
Light Stability (Blue Wool Scale)	7/8**
Static Rating (Surface Resistivity)	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

Standard Black RAL 9005* PANTONE Black

Standard Yellow RAL 1007* PANTONE 7548*

Rail Options

Standard Yellow RAL 1007* PANTONE 7548*

Standard Black RAL 9005* PANTONE Black

Standard Grey RAL 9007* PANTONE Cool Grey 5*
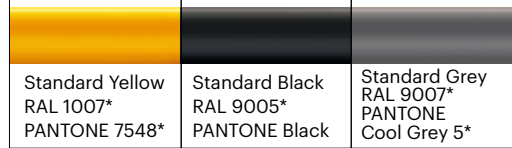
Colour Combinations

*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.