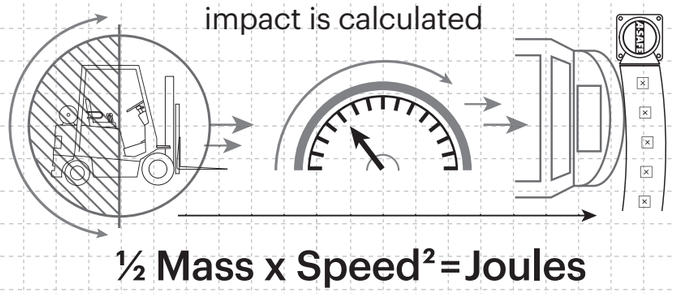
Technical Information

How the energy from a vehicle impact is calculated

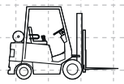


½ Mass x Speed² = Joules

Tested Impact Energy

6,900 Joules

Equivalent vehicle and speed



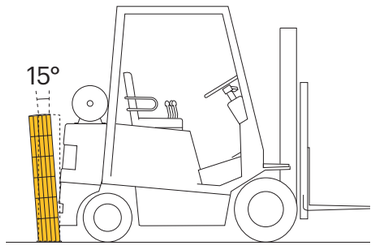
4.3 tonne X 4 mph impact

90° Impact on Bollard

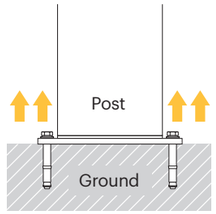
Impact Test

Max Energy (Joules) at 90° 6,900

Deflection at Max Energy
15° Lean



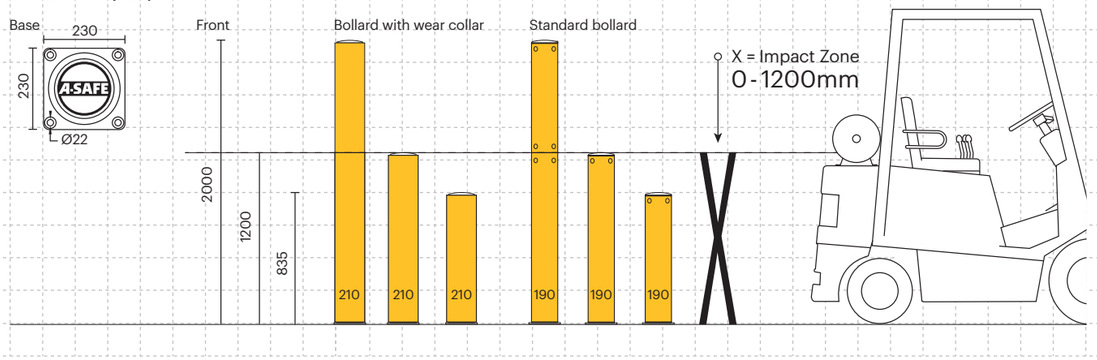
Force to Bolt
33kN



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	No

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

Dimensions (mm)



Bollard Options



Standard Yellow
RAL 1007*
PANTONE 7548*

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.

A-SAFE Est. 1984

iFlex™ Bollard



A-SAFE bollards are a multi-functional product used extensively in industrial, commercial and public environments.

Designed to protect structures and equipment from impact damage, and provide a robust physical presence to prevent access or guide vehicles and pedestrians.

Strong, durable and highly visible, A-SAFE bollards permanently reinforce a driver's attention to safe driving and can also act as guidance along traffic routes.

TÜV NORD — TÜV NORD Systems GmbH & Co. KG — Freiwillige Prüfung — A-SAFE PENDULUM IMPACT TESTER

Code of Practice for Workplace Safety Barriers PAS13

A-SAFE Headquarters
Habergham Works, Ainleys Industrial Estate, Elland, HX5 9JP, West Yorkshire, United Kingdom.
www.asafe.com

PROTECT SAFE SYSTEM
0739.646.666 - office@protectsafe.ro

Engineered for performance

A-SAFE's state of the art products are meticulously engineered to deliver the highest performance. Designed, developed, tested and manufactured in-house at our cutting-edge facility, each unique component is carefully crafted and purpose-built to play a vital role in the product's performance.

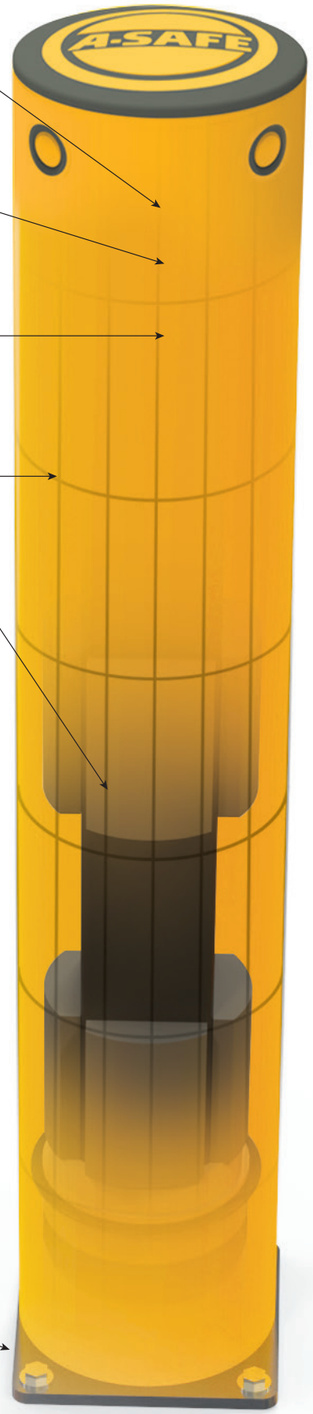
Advanced strength polymer created from an exclusive composition of the most sophisticated polyolefins and rubber additives, expertly blended for unequalled strength and flexibility.

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

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

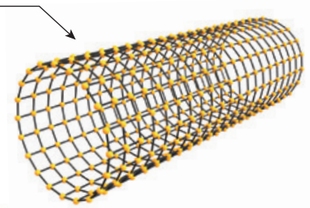
Self coloured and UV stabilised for continued high visibility and long lasting aesthetics with no repainting.

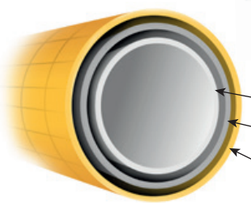
Energy absorbent foam creates permanent contact cushion between the internal and external structures.



MEMAPLEX™

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





Revolutionary 3-Layered Material

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



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

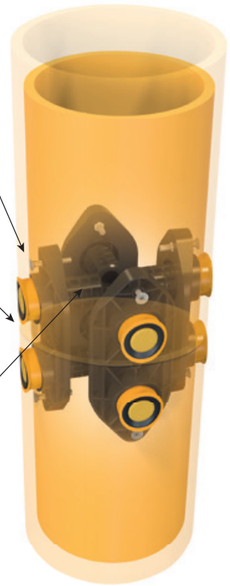
In-line coupling for height flexibility

The iFlex in-line coupling introduces a new level of modularity to the vertical height of a range of A-SAFE products. The coupling enables customers to take the standard 1200mm bollard up to 2000mm.

Four pin positioning to top and bottom sections gives increased rigidity and stability.

Seamless join enables easy stacking of top and bottom bollard sections.

Moulded pins lock securely into the internal layer with a quarter turn.



Rotating wear collar for advanced deflection

The wear collar adds an extra layer of protection along the full height of the bollard.

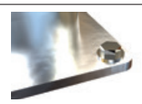
The rotating action deflects force from repeat glancing blows. Preventing expensive on-going maintenance costs.



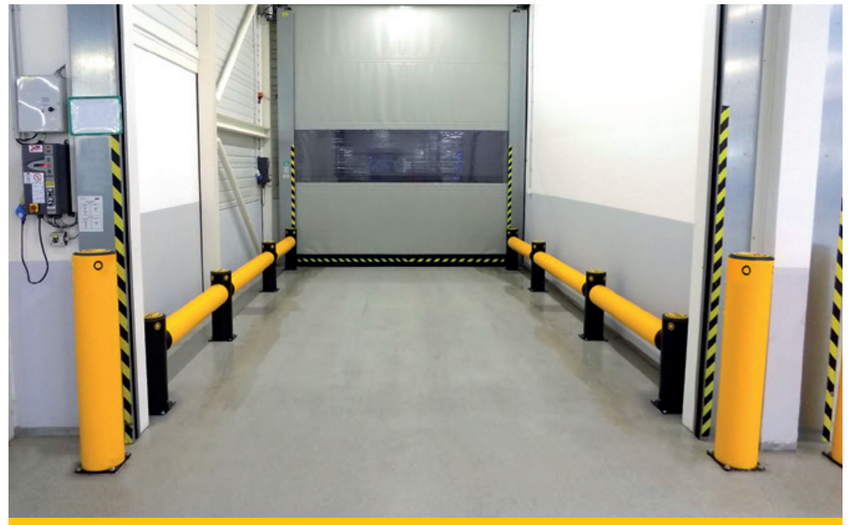
ADDITIONAL BASE OPTIONS



Countersunk Bolts
Creates a flat surface, preventing tyre damage where vehicles are in close proximity.



Stainless Steel 316 Countersunk
Ultimate performance option, no corrosion or rusting and resistant to powerful cleaning agents. Ideal for hygiene environments.



A versatile product that can be used to protect door frames on vehicle routes where impacts are likely to occur.



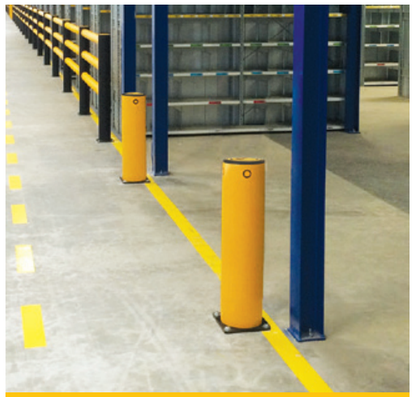
Higher level bollards give a strong visual alert for reversing HGV drivers, preventing costly damage to service yard infrastructure.



Ideal for use on vehicle routes with sharp angle turns such as car parks.



Allow constant access to frequent-use machinery and equipment, whilst protecting from impact with a high strength visual alert.



Protect infrastructure such as building supports where irregular base fixings are present or access is needed for maintenance.