



SIMPLY SAFER SIGN POSTS

Rigid roadside features such as signposts are responsible for more than 15% of all road fatalities in the UK.

Passive safety

Signposts are an essential part of the road network providing directions and warning of hazards but they also pose a significant danger to motorists. According to statistics from the IAM Motoring Trust, vehicle collisions with rigid roadside features such as signposts are responsible for more than 15% of all road fatalities in the UK.

Frangible Safety Posts offer a passively safe alternative. These highly advanced safety posts are helping to save lives and reduce serious injury because they are specifically designed to collapse on impact, protecting the driver and passengers and reducing damage to the vehicle.

Car impacting a steel post at 100kph

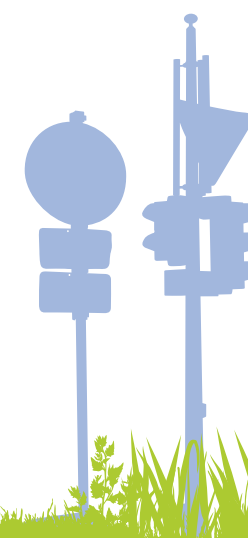


Car impacting a Frangible Safety Post at 100kph

Frangible Safety Posts compared to steel posts

Conventional steel signposts have a very high inherent stiffness and shear strength. As a result when a vehicle hits a steel post, the post behaves like a rigid, unforgiving body, imparting huge forces on the vehicle and its occupants which often results in serious injuries or fatalities

The Frangible Safety Post is constructed from the latest reinforced composite materials that matches the strength of steel posts, but due to their unique fibre construction and lower shear strength, is designed to collapse in a safe and controlled manner. In a collision this significantly reduces the forces exerted on the vehicle and its occupants significantly reducing the risk of fatality and severity of injuries.



Safer signposts

- Car crashes impact the economy with the cost estimated at £18 billion per year to the British economy alone.
- Run off road crashes into hazardous fixed objects at the side of the road account for a major part of traffic accident fatalities. In the United kingdom about a quarter of all deaths on rural main roads in Britain are associated with accidents with road side features such as signposts.

Source: EuroRAP Protect and Survive, January 2010

Frangible Safety Posts are durable, sustainable and designed to enhance road safety.

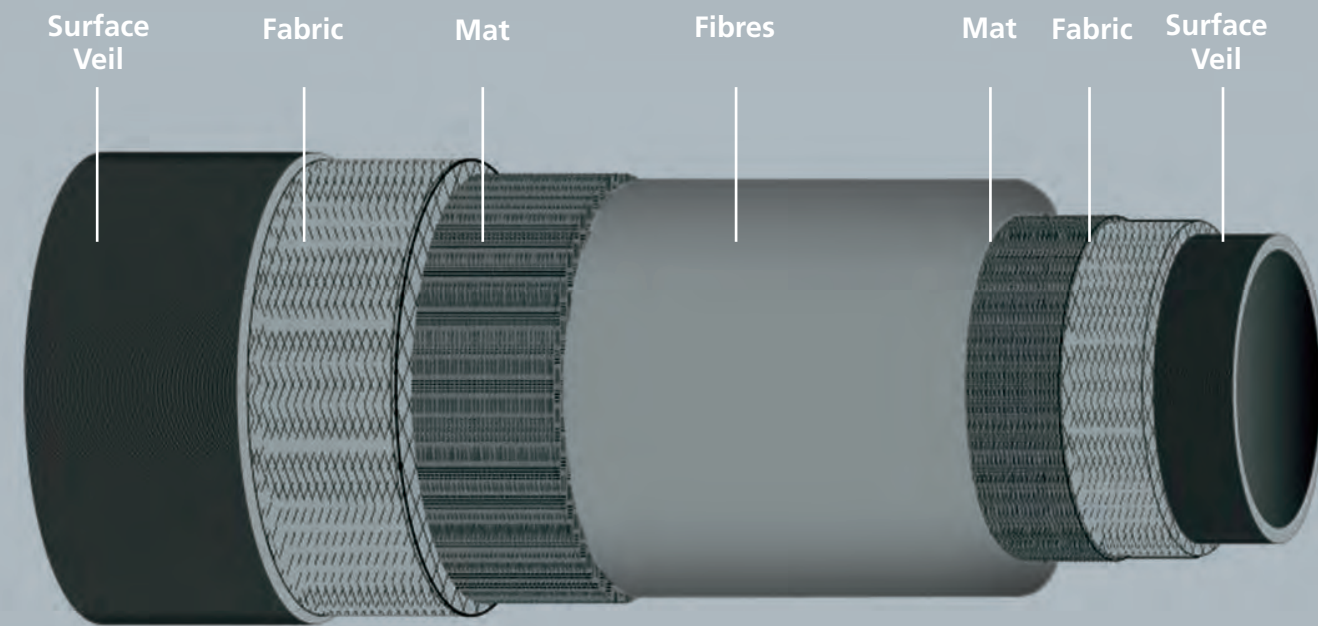
The patented FSP system creates posts that are strong enough to withstand turbulent weather conditions, but light and flexible enough to collapse safely when struck by a vehicle.

The post is designed to collapse in a controlled manner on impact only absorbing a small amount of energy. This prevents the internal trauma to vital organs due to rapid deceleration that can cause death or serious injuries to drivers and passengers.

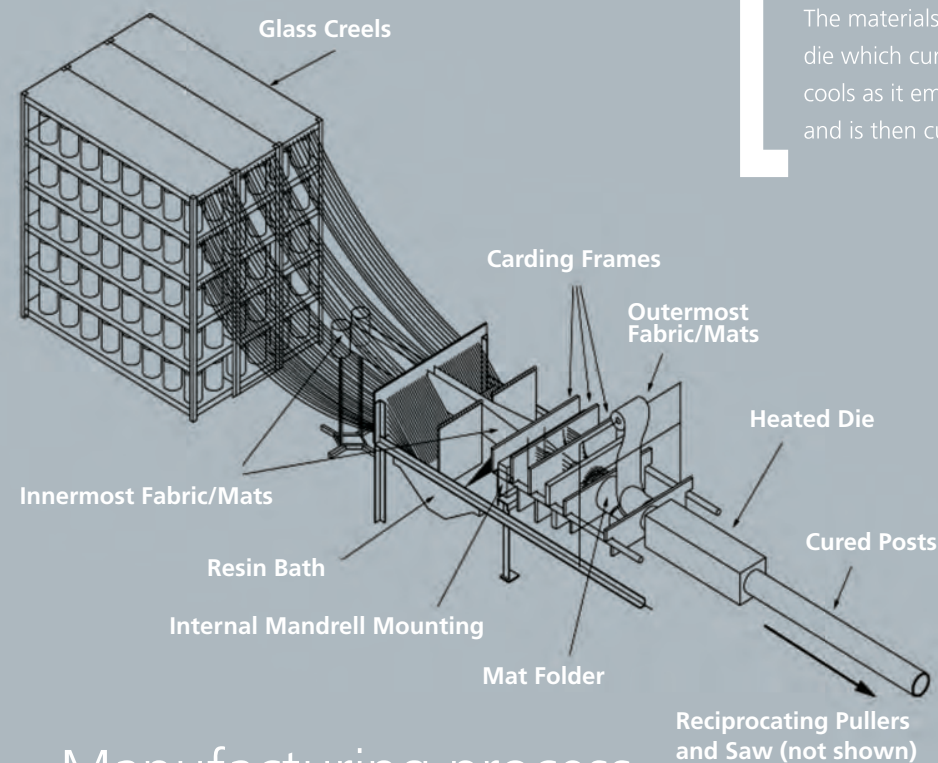
A number of European governments have targeted significant improvements in road safety – Frangible Safety Posts are helping to achieve this goal.

Design and manufacture

Through a patented combination of materials and geometries, Frangible Safety Posts balance bending moment, stiffness and shear capacity to optimise performance.



Fibres are pulled from a series of creels and pass through a bath where they are impregnated with polymer. While the fibres provide strength, the polymer binds the materials into a matrix. The materials then pass through a heated steel die which cures the resin matrix. The profile cools as it emerges from the puller mechanism and is then cut to length.



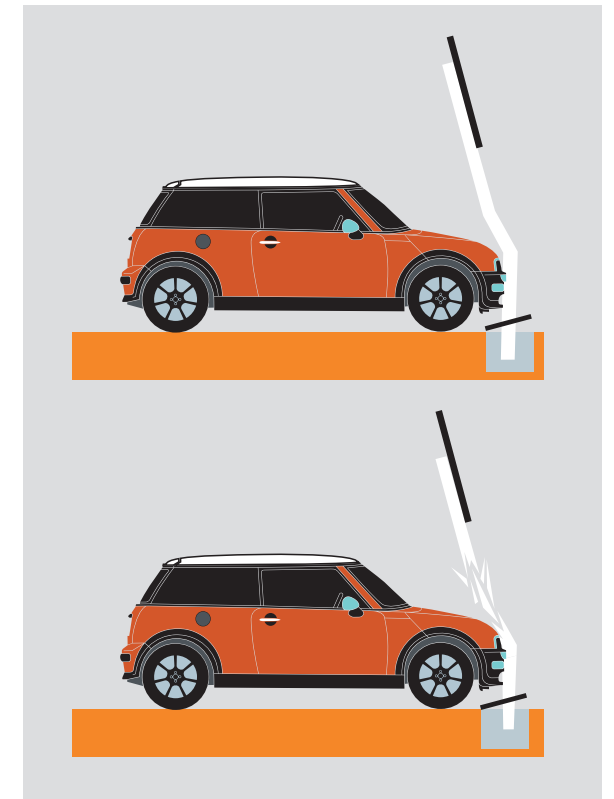
Manufacturing process

The posts are created using a well established continuous manufacturing process, with proven reliability and producing a light weight, constant diameter profile.

Benefits of the Frangible Safety Posts system

Frangible Safety Posts are compatible with existing road signs, use existing fixtures and fittings and are easy and cost effective to install using traditional techniques.

- At 4.2 kg per metre for the 140mm size, the Frangible Safety Posts are one of the lightest on the market, reducing the need for lifting equipment and making installation easier and quicker.
- The posts are supplied in various diameters - 140mm, 168mm and 219mm and in lengths from 3.5 metres to over 9 metres. They can be supplied in bespoke lengths or cut to size on site with standard cutting tools.
- Using standard foundations and standard fixings and clips, the posts are easy and quick to install.
- They are designed to match in with existing steel posts to maintain the road side look and feel.
- The posts are available in a range of colour options and finishes.
- Frangible Safety Posts Ltd offers a free replacement post for all crash damaged Frangible Safety Posts.





Safety performance

Frangible Safety Posts are independently tested to BS EN 12767.

The 140mm Frangible Safety Post has achieved the highest safety rating (NE:3) in 100kph crash tests and has a rating of NE:2 in 70kph tests.

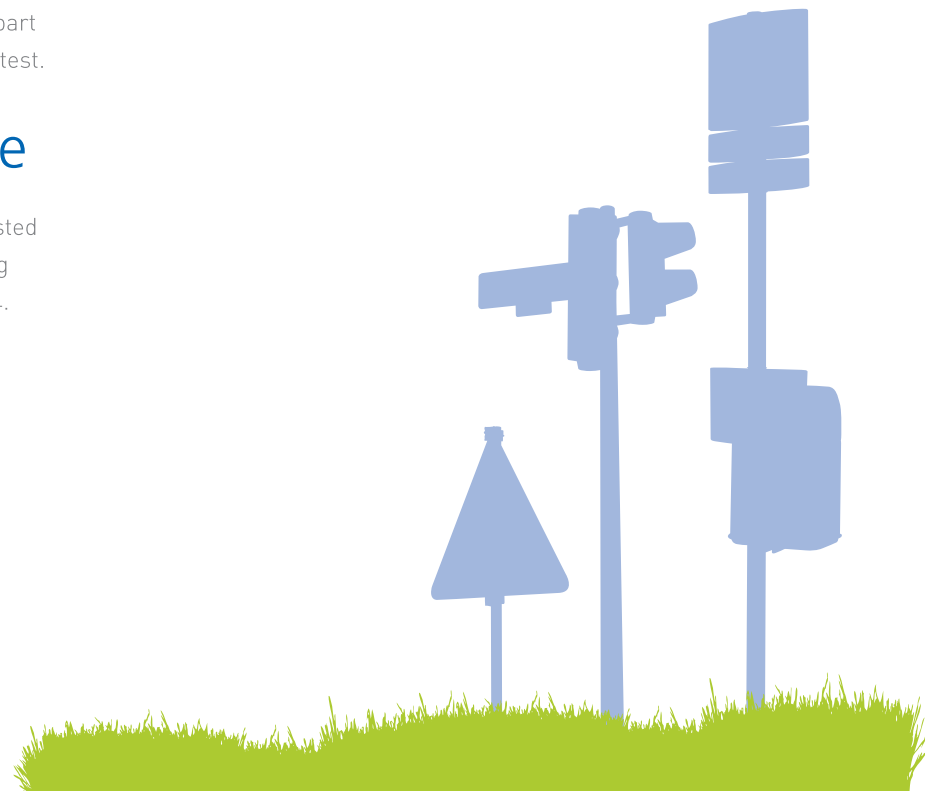
Unlike other passive safety posts the 140mm Frangible Safety Posts can be installed as close as 750mm apart and still maintain a NE:2 rating in at 100kph crash test.

Technical performance

Frangible Safety Posts have been independently tested and verified to meet the sign and wind load carrying requirements of BS EN 12899-1 or BS EN 1991-1-4.

FSP – company credentials

Established in 2009, FSP focuses on developing the highest quality passive safety products. A UK company, FSP purchased the patents to the Frangible Safety Post system from 3M. The company has in-depth knowledge of the passive safety markets and has developed the manufacturing capacity to meet current and future demand.



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