

Safespan® Europe



SAFESPAN®
EUROPE

Support You Can
Build On™

The Safespan logo graphic consists of a stylized green outline of a bridge or overpass structure, positioned to the right of the text.

TURNER ACCESS

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Innovation in Access



Turner Access Ltd is a division of the Turner Group; a private family owned and operated business since 1912.

Turner Access Ltd was established in 1984, initially as a hire and contracts operation. Since then, the company has evolved into a leading manufacturer and supplier of access equipment, with a product range comprising aluminium access towers, system scaffolding, powered access platforms and specialist training courses. The company incorporates Turner PlusEight® and Safespan® Europe.

At Turner Access Ltd our guiding principle of continuing progress has meant that in a short period of time we have become one of Europe's leading and respected Access manufacturers. Our commitment to safety and development of innovative products and safer processes, coupled with our training and contract services means we can truly offer the customer a complete access package.

Our Safe System of Work is Yours

Our drive towards safer systems of work has allowed us to become recognised in the access marketplace as an industry leader in promoting and providing innovative solutions to working safely at height.

Pioneering at BEST PRACTICE Level 3 of the Hierarchy of Measures and in full compliance with the Work at Height Regulations 2005, we can provide complete fall prevention with our Advanced Guardrail and specialist training courses.

This dedication to safe systems of work has earned us respect from leading industry bodies such as the HSE, NASC and Sa-fe; and resulted in achieving prestigious awards over the years.

Award Winners

As Winners of the **Access & Scaffolding Specialist of the Year 2005 and 2006**, and Winners of **Best Safety Product** at The Health & Safety Awards 2006, Turner Access have been independently judged as the BEST in the Business, supplying the BEST and the SAFEST access equipment on the market.

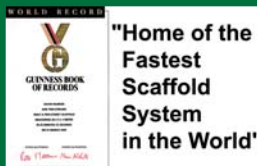
We are no strangers to winning awards.

In 2005, Turner Access Ltd, with the use of Safespan® and PlusEight® System Scaffolding, was integral in winning RoSPA and Working Well Together awards for the Tinsley Viaduct Project. This contributed significantly to the year's Quality in Construction Awards.

In 1994, a two man crew erected 100m² of PlusEight® System Scaffold in 19 minutes 59 seconds - a World Record!

We also hold records for the highest freestanding structure in scaffolding using our PlusEight® System at the Niagara Gorge, USA and the longest continuous access platform ever.

Award Winners



"A clear winner. Their achievements are way ahead of the sector."

"They won last year on the strength of one major project. This year, we saw more of the company and its culture - and it's brilliant." (Construction News 18.05.06)



Safespan® is a unique, patented, cable suspended, rigid working platform and shielding system, providing a very effective underbridge access system for bridge maintenance.

In outline Safespan® consists of three principal components:

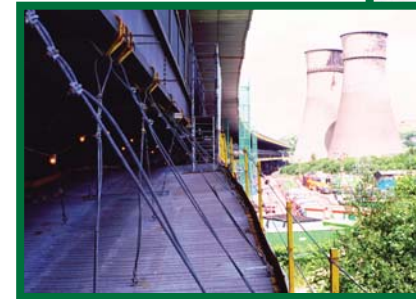
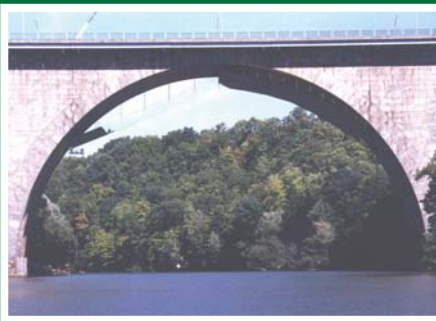
1. cables
2. profiled steel sheeting
3. steel clips

Horizontal (or longitudinal) cables, typically attached to the bridge abutments, are linked to vertical hangers attached to the bridge soffit creating what could be loosely described as an inverted suspension bridge. The steel sheeting is laid transversely across the horizontal cables and locked into place by the patented Safespan® clips.

Safespan®, for bridge maintenance, facilitates bridge access especially when tight clearance is essential. The access platforms allow bridge rehabilitation and bridge refurbishment in ways not possible before.

Typical Safespan® applications may include:

- ***Steel Bridges***
- ***Viaducts & Aqueducts***
- ***Offshore Installations***
- ***Shopping Centres***
- ***Marine Under-deck refurbishment***
- ***Arenas***
- ***Factories - food processing, refineries, mills***
- ***Glass Roof Repair and Installation***
- ***Refurbishment of stations, airports and hangars***



3. Benefits

Quick to Install

Safespan® increases project output and contractor productivity. The system reduces disruption to other site activities and reduces time on site.

Maximising Productivity

Safespan® allows several bridge refurbishment trades to work concurrently. The bridge project is effectively brought to the ground.

Environmentally Friendly

Provides an encapsulated working platform and also reduces the risk of claims for property damage and personal injury.

High Load Capability

Increases the range of bridge refurbishment work that can be undertaken and is capable of supporting additional vertical access from the platform.

Low Profile

Reduces the potential stress on the bridge caused by wind loading. Maximises clearance on limited height applications.

Good Working Environment

Promotes safer bridge maintenance working and reduces the risk of injury

Fully Recyclable

All Safespan® elements can be reused. Damaged pieces can be recycled contributing to a project's environmental impact plan.

Fire Resistant

No wooden components removing the need for special precautions against fire damage.

Engineered Design

Can include effect of product on the application. Safespan® is flexible and adjustable.

Low Self-Weight

Saves on secondary strengthening works and avoids unnecessary additional stress to the structure.

Allows for Maximum Clearance

Eliminates the need for road closures when bridge refurbishment is undertaken.

Easily Cleaned and Drained

Reduces time required during clean up operations, is easily drained and allows grit recycling.

Aesthetically Pleasing

Reduces visual environmental impact when undergoing bridge maintenance.

Safe

Safespan® provides clear exit routes for safe and orderly evacuation of a structure in the case of fire. Safespan® solid access platforms provide a comfort factor and improved productivity. The system is safe for employees and public alike.





Safespan® has been used extensively for bridge repair, bridge strengthening and bridge renovation. Safespan is only one tenth (1/10) the weight of traditional bridge scaffolding and was originally invented for bridge painting and maintenance.

Vertical cable hangers are installed along each cable at predetermined centres attached via clamps to the bottom flanges of the cross girders and cantilevers. Between each vertical hanger the longitudinal cable forms a catenary. This supports profiled steel deck sheeting which spans transversely between longitudinal cables.

The vertical cables are attached to the longitudinal cables via steel clips. These clips perform several functions:

- ***A U-bolt on the underside of the clip clamps the longitudinal cable.***
- ***An eye on the top of the clip accommodates a hook at the bottom end of the vertical hangers.***
- ***The clip plates clamp the deck sheeting and provide an effective seal at each connection position.***

The transverse deck sheets are overlapped by 300mm to provide additional rigidity and form an effective seal. Prefabricated slots in the sheets allow for connection via the clips. At the edge of each platform a longitudinal RSA is bolted to the deck sheeting. This can act as a toe board and can accommodate edge protection appropriate to each location. Vertical encapsulation can be attached at the base to the toe board. In the troughs of the deck sheeting rubber inserts are installed beneath the toe board to form a complete seal.

Transverse cable positioners (RHS) are provided at several intervals along the structure which change direction at the cables. The positioners are anchored vertically and transversely to the viaduct. A series of straight lengths of longitudinal cable and therefore, platforms are then provided which accommodate the horizontal profile of the viaduct.

Following installation, deck sheeting and all elements above the sheeting can be inspected from the platform. The longitudinal cables, including connections and the underside of the deck can be inspected from below using binoculars.

Inspection is carried out by trained personnel using a detailed checklist. The system has sufficient redundancy and has been designed to accommodate maintenance including replacement of any element of the system. The platform can be designed for a safe working live load of 2.5kN/m² or more.

Safespan® has been used successfully for the past 10 years, deployed on the Golden Gate Bridge and specified by Caltrans for Californian Elevated Highways and by the New York Port Authority for use on the George Washington and Manhattan Bridge. Safespan's first design commission in the UK was the Forth Rail Bridge. Its use over a 3 year period on the Tinsley Viaduct was the contract that established the system for use in Europe. The following testimonials for that particular project speak for themselves.



5. Client Testimonials

In summary: On-site and off-site; the independent view of Safespan®

"Not having to clamber up and down scaffolding when you're having to carry probes, pens, ultrasonic equipment, bucket of paste – Safespan has made a considerable difference."

JD Smith – Mach-10 (NDT inspection)

"It's more accessible than scaffolding – much easier to get around. It's been a good system. Brilliant. I was nervous at first but soon got used to it."

Jeff Grundy – Sandberg (NDT inspection)

"From a practical point of view the system has been superb. There are minimal contact points, which has minimised the need for additional reworking. Spot on. The system has great flexibility – it has far fewer rakers and struts than conventional scaffolding."

Andrew Byron – Interserve Industrial Services (Painting contractors)

"I don't think people realise the impact that traffic hold-ups have on British industry. Tinsley viaduct is an important element of the nation's road network and the project team has done wonders to keep disruption to a minimum. The biggest compliment I can pay Safespan is that most of the time you're not even aware it's there."

Ian Truswell – Truswell Haulage (Road hauliers)

"Tinsley viaduct is a critical access route for both local and national traffic flows. The use of Safespan, combined with regular co-ordination with the project team, has allowed us to minimise traffic disruption. The problems faced when the lower deck had to be closed for only 36 hours show that a more intrusive access system would have caused major headaches. Other benefits have included the maintenance of clear sight lines contributing to road safety, and improved security as the opportunity for access to the structure is reduced compared with scaffolding. From a personal viewpoint I think the 'look' of the works are better than with a conventional scaffold."

Peter Vickers – Highways Networks (Sheffield City Council)

"The 'Approval in Principle', or AIP for short, is a stringent document. It is a necessary process that has to be gone through before any major new technique or approach can be used on one of our structures. Safespan proved to us that it could meet the necessary standards and has contributed to a very successful project."

Arun Sahni – Highways Agency

"It (Safespan) was fundamental to the project going ahead within the time frame and with minimal disruption to traffic."

John Evans – Project Manager - Owen Williams

"On the Tinsley Viaduct Strengthening Project, Safespan Europe (Turner Access) have provided a rigid working platform second to none. The ease of installation combined with its reduced weight on the structure has saved on secondary strengthening works. Its use has increased the range of work that can be undertaken thus reducing time on site. The platform has provided a safe system for employees and the public alike, it's reduced visual impact is an added environmental benefit."

Paul Thomas – Production Engineer - Owen Williams Consultants

"Throughout the contract the Safespan system has proved itself time after time to be an excellent and safe system. It is my belief that the project could not have been carried out in the required timescales without this system. Safespan Europe (Turner Access) have been on site for two years and during that time have proved themselves to be a safe and competent contractor and willing to assist or adapt to changing needs of the project"

Frank Surrey – Senior General Foreman - Edmund Nuttall Ltd

"Safespan has been critical to the success of the project, providing a practical and innovative solution to an extremely complex and difficult engineering problem."

*Andy Milner – Owen Williams
(Consulting Engineers)*

"With Safespan there are virtually no destructive connections. Scaffolding would have caused far greater traffic disruption. Without doubt, Safespan has been a significant benefit to the project."

*Ashley Glover – Project Manager –
Edmund Nuttall (Main contractor)*

"Cleveland Bridge identified the potential benefits that Safespan could bring to the Tinsley project. We have not been disappointed. It has been a great success."

*Peter Francis – Project Manager – Cleveland
Bridge (Steelwork contractor)*

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