Barrier innovations making roads safer

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Developments in barrier technology continue to make roads safer for drivers - Mike Woof writes

In terms of imp
facing for gua

Innovative new barrier technology is helping make roads safer for drivers. Key developments have been made in barrier design, helping ensure road and highway infrastructure is more passively safe. New barrier designs ensure that errant vehicles are redirected into the roadway, with reduced risks for occupants and also other road users.

Continuously slipformed concrete barriers reinforced with steel are now widely used in central line dividers on highways, in the US and Europe as well as elsewhere, to minimise the risk of crossover accidents with heavy vehicles. The Jersey type barriers are used frequently, with variations to suit local requirements and much of the US and European network now features slipformed barriers. This type of barrier features a wide base that offers structural rigidity and various slipformer manufacturers, such as US-based **Power Curbers**, offer purpose-built molds to suit customer needs.

Steel barrier technology also continues to develop. And from **Barrier Systems** comes a new development in end terminals, which have used many different methods to shield dangerous guardrail ends. Slotted rail systems, turned down ends, eccentric loading systems, and extruder based systems have all proven as effective vehicle to a designated clear zone behind the hazard. Rail buckling, improper insta systems to fail, with more recent technology offering safer solutions. The newest sc tension-based technology and is used in the Barrier Systems X-Tension End Termin

This technology uses forces under tension rather than extrusion, which can deliver according to Barrier Systems. Low angled impacts on a tension terminal end will tra vehicle, as well as to the rail in front of the vehicle. These cables provide lateral str force of the vehicle travelling in a different axis, resulting in the vehicle being redire

Absorbing impact forces at the impact head rather than being transferred down the and energy absorbing capabilities. The X-Tension System is said to be easy to insta uses many non-proprietary guardrail components to minimise improper installation become misaligned with the guardrail to simplify maintenance. The tension technol provides redirective, non-gating performance. The company says that the redirectiv grading begins at post one rather than post three as with earlier gating terminals. T and a lightweight impact head helps keep inventory costs low. The X-Tension Term

Innovative new end treatments are available from Barrier Systems

and with either

French firm Ter
a pioneer of tir
guardrail for us
applications. Th
guard rail are r
by a number of
manufacturers
often used in s
to reduce the v
of the barrier,
ensuring safety
users with the
of compliant pr
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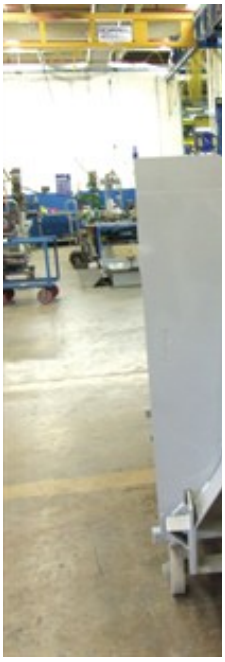

This mold, fro
is for slipform
barriers and
profile is desig
structural stre

has agents or licensing arrangements in Chile, New Zealand, South Korea and the U
its establishment of a subsidiary operation in Shanghai in 2011, while exports curre

All the Tertu barrier units are crash tested according to the European EN1317 stanc
several containment levels N2 and H2 systems and even a TL 3 NCHRP 350 approv
to be highly reliable and easy to install and this includes the new products the firm
18 4M, which has been successfully tested at containment level N2 and highlights th
presence through investing heavily in research and development. This new barrier p
and uses a 4m post spacing. The new Tertu system is said to provide cost benefits
competing products designed to meet the same containment performance, but usin

The company further highlights its investment in research and development with th due for testing in the near future.

Post protection

US firm Pexco says that its new DP 200 EFX City Post offers high performance ar rotated into position and is made from polyurethane, offering a long life. The one quickly when impacted and has benefited from recent manufacturing improveme

In addition the post has a new top cap with four holes in the top that allow air to improved cosmetics with a higher sheen, giving it the look of an expensive steel durability of engineered plastic polymers. The City Posts were subjected to tough Transportation Institute (TTI), with every post surviving 90 impacts at 88km/h a was designed to subject the posts to the NTPEP test protocol requiring both bum posts are sometimes subject to low-speed crushing forces from heavy vehicles s City Post resists these forces and rebounds to within 5° of the vertical, little the

Key benefits of using the City Post include minimal maintenance, no base to bec speed and low speed installations, easy spin installation and removal, and long li City Post are high-performance, durability, one-piece construction and no base t sleek profile.