

Beakbane engineers safety skirt for Avon Barrier.



When Avon Barrier needed a safety skirt for its new shallow-bed road-blocker it turned to bellows and machinery protection specialist Beakbane. The specially designed and manufactured bellows-type safety skirt ensures people, animals or objects cannot get trapped under the barrier when it is lowered, and prevents leaves and litter collecting in the sub-surface housing.

Beakbane is the UK's leading manufacturer of bellows, safety covers and slideway covers in materials that include fabric, polymers, sheet metal and composites. Its products are used in industries that range from machine tool building and medical equipment to power generation and security equipment.

Avon approached Beakbane with an outline of what it wanted to achieve and Beakbane's engineers were able to suggest a number of ways to approach the problem.

The new RB880CR Defender PAS68 high-security road-blocker is designed to protect against terrorist attacks using vehicle-borne improvised explosive devices.

Placed in the access points to sensitive areas, such as government premises, power stations, airports and high-risk companies, the road-blockers can be lowered to allow traffic to pass, but in the raised position can stop a speeding truck in its tracks.

Traditional designs of retractable road-blockers use a solid quadrant section barrier that retracts completely into the ground. This requires a housing below the ground at least as big as the barrier – maybe over 1m deep – so installing one of these barriers requires extensive civil engineering works.

The new shallow-bed road-blockers are designed to offer the same high level of protection where deep foundations are not practical or possible. They feature a fabricated steel impact wedge that pivots upwards to provide a 1m high and 2m wide barrier when raised, but retracts into a buried frame just 300mm deep.

In the raised position there is a space between the impact wedge and the ground frame. To avoid the possibility of any person or animal getting trapped under the barrier, and to stop leaves and rubbish collecting in the space, Avon wanted to be able to offer customers some kind of protective safety skirt. This would need to prevent access to the underside of the barrier and fold flat when it was lowered.

Using its knowledge of developing and manufacturing bespoke protection systems, Beakbane worked with Avon to come up with the best possible solution – a flexible, fabricated, bellows-type cover. The material used was a specially-formulated polymer that would withstand long-term outdoor exposure anywhere in the world.

The covers have already been deployed in secure installations and are performing exactly as required.

Beakbane's managing director Barry Reeves says, "Avon came to us with a clear requirement but no clear idea of how to achieve it. We were able to use our skills and experience in developing and manufacturing bespoke products to solve their problem."

