









H.V.M
HOSTILE VEHICLE MITIGATION

# SPRINGLINE 50 THE WORLDS MOST VERSATILE CRASH RATED PAS 68 & IWA 14 FENCE

Safetyflex Barriers were commissioned to specially design a new Perimeter Fencing System with a very shallow foundation of only 400mm deep and would work in soft ground. Protecting sites from hostile vehicle attack. Referred to as Hostile Vehicle Mitigation (H.V.M).

**Springline 50** is made up with an end foundation block at each of a run of fencing only 400mm deep, the foundation block is need only at the end of a fence run to stop it pulling out of the ground if attacked at the end. The rest of the run is fitted with intermediate posts every 10 metres apart and only 400mm deep by 1m square.

All the end posts and intermediate posts are made from special spring steel that will absorb large amounts of energy on impact. The posts are fitted with wire cable; this is made up into 10.5 metre long slings that go over each post and is clamped on to the post with a U-bolt. When this is done you tighten up the U-bolt onto the sling, it makes a loop, and the U-bolt is then torqued up.

There are 5 slings fitted to each post and runs the full length of the perimeter fence. When a vehicle runs into the fence the cables will slip through the U-bolts, this then reduces impact force on the post, absorbs the initial energy of the impact and this results in a more gradual loading on the Fence Posts and slows the vehicle down.

When the cable tightens onto the Spring Posts that then flexes absorb more energy, this then transfers to the next Post ensuring that the impact force dissipates well before the end post. The impact energy was absorbed by the Fence before reaching the end Posts; this allows us to have a shallow foundation.

#### TESTED TO THE NEW IWA 14-1:2013 TO V7200/N3C/80/90:8.5





International Patents applied for.

Spring post flexing on impact and elastic spring behaviour of the fence posts as it absorbs impact energy and the end post not moving.





### How it works...

Due to the unique design of the Springline 50 Fence it can turn 45 degrees and 90 degrees on corners and can be installed on uneven or undulating ground and will maintain its cable height's from the ground.

This is due to the fact that it is constructed of individual wire fence sections as opposed to a single continuous tensioned wire. The individual sections allow the fence to be installed following the profile of the ground with no extra parts needed.

A unique feature in the design is that if you need access through the Fence line you can remove part of the fence in 10 metre sections; this will not compromise the security of the rest of the Fence line. If the fence Line comes under attack only part of the fence will need replacing not a long run. (illustrated in the photograph). The system is the most economical H.V.M Fence to buy and install on the market today. Once fitted very little maintenance is needed.







## Access without compromise...

### How to remove a 10 metre section of the fence line without compromising the security of the fence line?

First of all remove the Post cap (A) from the top of the Intermediate posts, and then remove U-bolts (B) from the Intermediate Posts. Each side of the gap you need to open up. Then remove cables (C) from the Intermediate Posts. Once this is done you can then remove U-bolt (D) from Line Post (F). Then remove the Slings. Once this is done you can then remove Line Posts Bolts (E), in this case from the concrete road ways, and then remove Line Posts (F). You will then have a 10 metre access gap in the Fence Line for access. To close up the gap just refit all the Parts in reverse.











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