

# TECHNICAL SPECIFICATION

## 10840 & 10850 Articulated Shallow Depth Static Bollard



INVENTION NOT CONVENTION



### PRODUCT OVERVIEW

The CSG 10840 & 10850 Bollards have been designed specifically to protect critical national infrastructure from vehicle borne improvised explosive devices, whilst maintaining the most stringent aesthetic requirements and capable of being installed into utility rich, undulating shallow substructure.

### CRASH TEST RESULTS PAS 68:2010 Classifications

**MODEL 10840** Fixed bollard V/7500(N2)/64/90:0.0/17.9

**MODEL 10850** Fixed bollard V/7500(N2)/80/90:2.8/9.8

### CONSTRUCTION

- Bollard column of 254mm diameter impact tested steel hollow bar section
- 1000mm nominal height depending on actual embedded depth
- Base footings constructed of heavy duty folded and profiled section 210mm deep
- Unique articulated linked system for difficult installations on gradients and curved arrays
- Jacking screws 4-No on each unit to assist with individual levelling
- Finish – shot blast to S.A.25, thermal zinc spray and finished to any standard RAL colour
- Reflective 50mm wide band option sandwiched between two stainless steel bands
- Stainless steel adjustable sleeve option with DDA compliant band
- Replaceable reinforcing links to aid individual unit removal or access to services below
- Left and right-hand end units fully tested to PAS 68:2010



## UNIQUE ARTICULATED LINK

Current shallow depth bollard systems are restricted to straight-line arrays on level sites - any directional or level changes necessitate bases and linkages to be specially engineered to suit the particular site conditions.

Having had experience with many full depth bollard installations, Cova recognised these problems would be more crucial with a shallow depth system.

With this in mind Cova have devised and tested the unique Articulated Linkage which not only allows for each bollard unit to accommodate gradients up to  $3.6^\circ$  (1:16), but allows for convex and concave arrays.

This unique feature eliminates the necessity to survey and individually design and manufacture special units, and allows complete on-site freedom to adjust for height and position before tightening up the connector plates to form a strong rigid link.

The system has been fully tested at the Transport Research Laboratories, Wokingham, Berkshire, including full testing of the end units in arrays of three bollards.



**10840 & 10850  
Articulated Shallow  
Depth Static Bollard**

**Cova Security Gates Limited**  
Unit C1, Sussex Manor Business Park  
Crawley, West Sussex  
RH10 9NH United Kingdom

Tel | +44 (0) 1293 553888  
Fax | +44 (0) 1293 611007

Email | [sales@covasecuritygates.com](mailto:sales@covasecuritygates.com)  
Website | [www.covasecuritygates.com](http://www.covasecuritygates.com)