

## Technical Specification

### 10503

## Series Pit Mounted & Full Depth Road Blockers



**PHOTOGRAPH:** British Embassy Ankara

### Construction

Designed to BS 6571: Part 4 1989.

Tread plates of 10mm thick (over plain) durbar tread plate.

One piece 3mm thick sheet steel skirt.

Trimmer frames are 70x70 or 80x80 hot dip galvanised angle sections – fully spragged around periphery for maximum holding.

Riser frames are of heavy gauge RHS sections fully welded.

Base frames are of heavy duty RHS sections designed to withstand axle weights in excess of 12 tonne.

### Dimensions & Locking System

| Heights | Angle  | Crash Tested                |
|---------|--------|-----------------------------|
| 350mm   | 45°    |                             |
| 500mm   | 45°    |                             |
| 625mm   | 35°    | 7500kg@80km/h (3000mm wide) |
| 800mm   | 35-45° |                             |
| 1000mm  | 35-45° |                             |

*Note: In order to maintain crash rating integrity – angle of the blocker 35°, width must be a minimum of 2500mm, height not less than 625mm.*

Standard Widths 2000mm, 2500mm, 3000mm, 3500mm. Also in non standard widths to suit particular applications.

### Safety

Unlike some crash rated blockers on the market the conventional one piece full depth skirt affords substantial pedestrian safety. There are many inherently dangerous designs without skirts in current use and still being sold which

are the subject of debate as to whether they comply with BSI/EN standards and current health and safety legislation. Many customers find themselves having to provide pedestrian protection by positioning these blockers behind gates and full height barriers etc to attain pedestrian protection.

Additional protection can be provided using photo beam systems tailored to the particular application. It is recommended that the blocker is installed with vehicle detection loop systems.

## 10503 Series | Road Blockers

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## Crash Testing

The mid range CSG 10500 series (625mm high x 3000mm wide) full depth blocker has been tested at the Motor Industry Research Association (MIRA), Nuneaton, Warwickshire. The test was carried-out using a Iveco (Ford) Cargo rigid truck ballasted to a test weight of 7,750kg and impacted the blocker at 80.8 km/hr. Under Department of State test standards SD-STD-2.01 Revision A certification class K12.

## Operation

- The blocker is powered by a hydraulic power pack this can be configured to suit particular requirements. Normal operating time would be 5 seconds but faster operations can be achieved with larger hydraulic packs or accumulators.
- Accumulators can be incorporated to provide fast emergency operation and/or limited operation during a power failure.
- Uninterruptible Power Supplies (UPS) can be incorporated into the system as a better means of covering electrical power failures. These can be sized for normal operating speed only but will produce far more operations than is practical with an accumulator.

## Controls

Controls are Programmable Logic Controller (PLC) based and therefore are very flexible and can be configured to suit customers requirements. Optional features can include conventional push button station or Human-machine interface (HMI) terminals. Single or multiple control positions and all forms of access control can be utilised.

## Installation

Two methods of installation can be adopted:-

- 1 Installed into a concrete pit constructed to CSG foundation drawings. Typically this steel reinforced cast concrete pit consists 300mm thick walls on a 200mm thick base with drainage and service ducts.

The trimmer frame forms the inside edge and includes fixing holes for shuttering to be attached.

**Alternatively;**

- 2 The blocker can be supplied with in an integral steel tank. This simplifies the installation in that the whole assembly can be lowered into the excavated hole. Service ducts are connected to the tank and reinforcing positioned to strengthen the walls.

After final levelling and adjustments the concrete can be poured in two stages over a 2-3 day period.

- As final back-up a hand pump is supplied as standard within the power pack to raise the blocker and a manual release to lower.

- **Two types of locking systems can be supplied with this range of blocker:-**

The whole range can be fitted with hydraulic locking whereby the cylinders are hydraulically locked in the raised (attack position).

**Alternatively;**

On 625mm rise and larger blockers a hydro/mechanical bolting option is available. This consists of two large diameter locking pins that are hydraulically driven into position to lock the riser in the attack mode.

- Enclosures controls and hydraulic power packs can be designed to operate multiple blockers systems.

## Electrical

Supply 400volt 50Hz three phase (TP&N) is the preferred supply but other voltages can be accommodated.



**PHOTOGRAPH:** Crash Test Footage