

MODEL DSC600  
DUAL BOLLARD MODULE  
CRASH TESTED – CRASH CERTIFIED

SYNOPSIS

- The DSC600 module is designed to function as a stand alone module or as part of an extended array. Adjacent modules need not be linked; facilitating curved or inclined layouts.
- The foundation is 14 inches (36 cm) deep and can be set into existing roadways, sidewalks or landscaped areas.
- The exposed surface of the foundation can be textured, colored or finished with paving treads to a depth of 2.0 inches (51 mm).
- The DSC600 has received the highest crash rating under the performance standards of the United States Department of State specification SD-STD-02-.01-Rev. A, March 2003 - K12.
- The rating was assigned following full scale testing by an independent test laboratory. The DSC600 was hit by a 15,006 pound (GVW) (6,807 kg) truck traveling 50.78 mph (81.7 kph) The permanent penetration of the truck bed was 15 inches (38 cm).
- The DSC600 has further been certified by the United States Department of State to have met their requirement of Dynamic Penetration of less than 1.0 m.
- The DSC600 is supplied from the factory with steel reinforcing mesh welded in place, matching the as tested configuration. In most situations no additional rebar is needed for installation.
- Decorative slip on cast aluminum and fiberglass covers, both standard and custom are available.

\* Customer Specified

- 1.0 CONFIGURATION. The DSC600 is a shallow foundation fixed Bollard Module. Consisting of a structural steel skeleton incorporating two Bollards.
  - 1.1 Bollards shall extend above foundation and paving 43.0 inches (1.09 m).
  - 1.2 Bollard maximum diameter shall be 10.8 inches (27 cm) (at top rings).
  - 1.3 Spacing. Clear opening between Bollards shall be 41.3 inches (1.05 m) and meets provision of ADA handicap accessibility.
  - 1.4 Finish. Exposed barrier surfaces shall be painted with a gloss white, two-part epoxy high weather resistant paint (or optional galvanized finish).
- 2.0 FOUNDATION.
  - 2.1 Footprint. 108 inches (2.74 m) wide (line of array) X 90 inches (2.29 m).
  - 2.2 Depth. 14 inches (36 cm).
  - 2.3 Concrete Reinforcement. Modules shall be furnished with steel reinforcing mesh welded in place. Steel mesh shall match the configuration of the original tested and certified module.
- 3.0 ARRAYS.
  - 3.1 INCLINED ARRAYS. Modules shall be configured so that they can be arrayed to follow the elevation of sidewalks, roadways or landscaping.
  - 3.2 CIRCLES OR CURVES.
    - 3.2.1 CONCAVE CURVE. (Assets and Modules located inside a circle or curve).
    - 3.2.2 Modules shall be manufactured to be arrayed in curves or circles with a minimum radius of 192 inches (4.88 m).
    - 3.2.3 CONVEX CURVE. (Assets and Modules located outside of a circle or curve).
    - 3.2.4 Modules shall be configured so that they can be arrayed in a convex curve.

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### 3.3 CORNERS.

3.3.1 OUTSIDE CORNER–90 Degree. (Assets and Modules placed outside of a box).

3.3.2 INSIDE CORNERS - 90 degree. For 90-degree corners a 3 (three) Bollard Module shall be available. P/N DSC600-3.

### 4.0 PERFORMANCE.

4.1 Qualification Tests. The module shall have been tested in full scale configuration in accordance with the Department of State Certification Standard Test Method for Vehicle Crash Testing of Perimeter Barriers and Gates, SD-STD-02.01, Revision A, March 2003.

4.2 Crash Rating. The module shall have a Department of State certified rating of K12.

4.3 Dynamic and Permanent Penetration. The module shall specifically have been certified to have a dynamic and permanent penetration of less than 1.0 m in the full-scale test (section 4.0).

### 5.0 QUALITY ASSURANCE PROVISIONS.

5.1 Inspection. Upon completion, the Barrier system will be fully inspected in the manufacturer's shop. The following checks shall be made:

5.2 Workmanship. The Barrier shall have a neat and workmanlike appearance.

5.3 Dimensions. Principle dimensions shall be checked against drawings and ordering information.

5.4 Finish. Coatings shall be checked against ordering information and shall be workmanlike in appearance.

### 6.0 PREPARATION FOR SHIPMENT

6.1 The Barrier system shall be crated or mounted on skids as necessary to prevent damage from handling. The shipping container(s) shall be of sufficient structural integrity to enable the assembly to be lifted and transported by overhead crane or forklift without failure.

\* Customer Specified

7.0 DISCLAIMER.

7.1 Please note - careful consideration must be devoted to the selection, placement and design of a Bollard Array. Just as in the case of a vehicle directing or perimeter security device or gates that block or define a roadway or drive, care must be taken to ensure that approaching vehicle as well as pedestrians are fully aware of the Array. Proper illumination and clearly worded warning signs should be considered. Delta has information available on auxiliary safety equipment not specifically listed herein. It is strongly recommended that an architect and or a traffic and or safety engineer be consulted prior to installation of Bollard Array. Delta will offer all possible assistance in specifying the, equipment, signs and lighting devices but we are not qualified nor do we purport to offer either traffic or safety engineering information.

8.0 PROCUREMENT SOURCE. The Model DSC600 shall be purchased from:

DELTA SCIENTIFIC CORPORATION  
40355 Delta Lane  
Palmdale, California, 93551, USA  
Phone (661) 575-1100  
Email [info@Deltascientific.com](mailto:info@Deltascientific.com)  
[www.deltascientific.com](http://www.deltascientific.com)

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