

LEVEL 7

Operable Steel Defender Security Screen

Model: S-DEN-O

PART 1 GENERAL

1.01 Description

The security screens shown on the plans and herein specified are the products of Kane Innovations, Erie, Pennsylvania. This manufacturer's name and products have been used to establish the standards of construction and quality of workmanship required for this project. Manufacturers bidding on this project must be actively engaged in the fabrication of specified items for a minimum of five (5) years prior to the bid date. Manufacturers requesting approval to bid their products as equal must submit to the Architect full-size drawings, including details of construction, and a complete operating security screen sample, ten (10) days prior to the bid date.

1.02 Submittals

- A. Manufacturer shall submit shop drawings, showing details of attachment to surround materials and elevations showing scope of the project.
- B. Samples of materials as may be requested without cost to owner; frame sections, wire cloth, fasteners, mullion section, corner section, etc.

1.03 Warranty

The operation of the security screen supplied by Kane Innovations on the designated project is warranted for one (1) year against any proven defective material or parts, as called for in the specifications and approved shop drawings. This warranty does not cover abuse by others.

PART 2 PRODUCTS

2.01 Acceptable Manufacturers

Kane Innovations, Erie, PA
☎ (800) 773-2439

2.02 Main Frame

- A. The main frame shall be reinforced, open channel design with removable concealment plates. The open channel frame shall be formed 5/8" [15.875mm] x 1-3/8" [34.925mm] x 4-7/32" [107.15625mm] x 19/32" [15.0813mm] of 12-gauge steel and reinforced by a "Z" shaped bar formed 1-3/16" [30.163mm] x 1-3/4" [44.450mm] x 5/8" [15.875mm] formed of 12 gauge steel, that supports the wire cloth. The corners of the main frame shall be notched for self-aligning and internally robotically welded.
- B. The removable concealment plates measuring 1" [25.4] x 3-1/8" [79.375] are spot welded together at each corner using a 2" [50.8] square gusset. The concealment plates formed of 16 gauge steel shall be secured to the back of the main frame to conceal the locking mechanism and the wire cloth supports using screws. Inside screws shall be #10 x 1/2" Tamper-resistant TORX® pan head sheet metal screws attaching the concealment plate to the reinforcement "Z". The outer screws are #10-24 x 1/2" Phillips flat head thread cutting u/c screws.

2.03 Sub-frame

The sub-frame shall be of channel design, formed 3/4" [19.05] x 1-7/16" [36.5125] x 1-7/16 [36.5125] of 12-gauge sheet steel on all sides. The corners of the sub-frame shall be notched for self-aligning and robotically welded on both sides to provide a rigid frame within which the main frame operates.

2.04 Finish

- A. All interior and exterior surfaces of the main frame, sub-frame and concealment plates shall be thoroughly cleaned in a 5-step bonderizing process. The surfaces shall receive an electrostatically applied thermoplastic, polyester powder coating (2.5 mil min. thickness) which shall be applied and baked to a hard mar-resistant finish in one of Kane's standard colors.

- White
- Gray
- Black
- Beige
- Dark Bronze

- Custom colors are available at additional cost with submission of color sample

2.05 Infill Options

- Wire cloth shall be woven 12-mesh to the inch from .028-inch diameter Type 304 stainless steel wire and double crimped.
- Wire cloth shall be woven 10-mesh to the inch from .047-inch diameter Type 304 stainless steel wire and double crimped.
- Wire cloth shall be woven 8-mesh to the inch from .054-inch diameter Type 304 stainless steel wire and double crimped.

2.06 Wire Cloth Attachment

- A. The wire cloth hardware shall consist of clevises, stainless steel pins, bolts, washers, oil tempered coil springs and full tempered steel 1/8" [3.175] x 3/8" [9.525] shock distributing bars. The 10 mesh requires a 16 gauge stainless steel retainer clip measuring 13/32" [10.319] x 1-31/32" [50.006] at each clevis.
- B. Each shock absorber shall be individually mounted on an electroplated, oil tempered coil spring, which shall have a capacity of 175 pounds per 1/2" [12.7] of movement and spaced no more than 8" [203.2] apart.
- C. The four edges of the wire cloth shall be wrapped 180 degrees around continuous shock distributing bars for the full length of each edge, embedded within the yokes of the shock absorbers and held in position with stainless steel pins passing completely through the yoke and engaging the wire cloth twice.

2.07 Locks and Releases

- A. Locks
 - Each screen shall have a concealed Kane 107® bitt key lock, actuating ball bearing and case- hardened steel bolts. The bolts shall operate simultaneously from one key station with a special bitt key.
 - Type 107N (four tumbler) Egress not available with this option
 - Keyed both sides of main frame
- B. Releases
 - Push-Quick® release which conforms to NFPA 101 (5-2.1.7.1)
 - Down-Quick™
 - Lift-Quick™

2.08 Hardware

- A. Each screen shall be provided with two or more concealed 13-gauge, electroplated steel hinges with 1/4" [6.35] diameter hardened, loose stainless steel pins and integral compression guards. Hinges shall be spaced at a maximum of 24" [609.6] on center. 13-gauge stainless steel hinge available.
- B. Each screen shall include adjustment screws (1/4-20 x 3/4" philips pan head thread cutting fastener) and 16 gauge 1-3/16" [30.163] x 3/4" [19.05] steel scribe angles shall be supplied at the head and jambs if required.
- C. Each screen shall come fully assembled and tested at the factory for operation.

PART 3 EXECUTION

3.01 Inspection

Verify that openings fit allowable tolerances, are plumb, level, provide a solid anchoring surface and comply with approved shop drawings.

3.02 Installation

- A. Install in accordance with approved shop drawings and specifications.
- B. Plumb and align faces in a single plane and erect screens square and true, adequately anchored to structure.
- C. After completion of installation, screens shall be adjusted, in working order and cleaned.

PART 4 ENVIRONMENTAL REPORTING

4.01 LEED Materials and Resources

- A. Recycled Content: This product contributes toward satisfying Credit 4 under LEED.
- B. Regional Material – This product can contribute toward satisfying Credit 5 under LEED