**LEVEL 6**

**Operable**

**Steel Van-Guard Security Screen**

**Model: S-VAN-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**

1. Manufacturer shall submit shop drawings, showing details of attachment to surround materials and elevations showing scope of the project.
2. Samples of materials may be requested without cost to owner: frame sections, infill sections, fasteners, mullion section, corner section, etc.
3. Additional submittals shall be done in accordance to contract specification section 08663 part 1.05

1.03 **Warranty**

The operation of the security screen supplied by Kane Innovations on the designated project is warrantied for one (1) year warranty 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**

1. The main frame shall be of open box channel design, measuring 5/8” [15.875mm] x 1-3/8” [34.925mm] x 2-1/2” [63.5mm] x 1-5/16” [33.338mm] x 5/8” [15.875mm] and formed of 12-gauge steel. The corners of the main frame shall be notched for self-aligning and robotically welded.
2. Braces shall be furnished when required. They shall be of open box channel design, measuring 5/8” [15.875] x 1-1/32” [26.19375] x 2-1/2” [63.5] x 1-1/32” [26.19375] x 5/8” [15.875] and formed of 12-gauge steel.
3. Concealment plates, measuring 2-5/16” [58.7375] and formed of 12-gauge steel shall be applied to the back of the main frame (and brace if furnished) to conceal the locking mechanism and retain the infill. The concealment plates shall be attached to the main frame along the inner and outer edges by screws. Inner screws shall be #10 x 1/2" tamper-resistant. TORX® pan head sheet metal screw, and penetrate the concealment plate, infill, and main frame approximately 4” [101.6] on center. The outer screws shall be #10-24 x 1/2" Phillips flat head thread cutting screw u/c, on center no less than 8” [203.2] but no more than 12” [304.8], with exception of smaller screens.

2.03 **Sub-frame**

The sub-frame shall be of channel design, measuring 3/4" [19.05] x 1-7/16” [36.5125] x 1-7/16” [36.5125] and formed of 12-gauge 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**

1. 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. The in*fill* shall be thoroughly cleaned in a 5-step bonderizing process. An electrostatically applied ***black***, thermoplastic, polyester powder coating (2.5 mil min. thickness) shall be applied and baked to a hard mar-resistant finish.

2.05 **Infill**

 ***Wire Cloth***

* 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.

 ***Perforated Panel***

* 18-gauge stainless steel with 63% open area
* 16-gauge mill-galvannealed steel with 63% open area
* 14-gauge mill-galvannealed steel with 51% open area
* 12-gauge mill-galvannealed steel with 51% open area
	1. **Infill Attachment**
1. The wire cloth shall be folded 90 degrees on the edges and held securely in place by means of a removable concealment plate of 12-gauge steel and #10 x 1/2" tamper-resistant TORX® pan head sheet metal screws.
2. The perforated panel shall lie flat on the main frame and be held in place by means of a removable concealment plate of 12-gauge steel and #10 x 1/2" tamper-resistant TORX® pan head sheet metal screws.
3. Philips flat head thread cutting screws shall penetrate the concealment plate and main frame along the outer edge. The inner TORX® tamper-resistant screws shall penetrate the infill, concealment plate, and the main frame approximately 4” [101.6] on center.

2.07 **Locks and Releases**

1. Each screen shall have a concealed actuating ball bearing, 1/2” [12.7] diameter casehardened steel bolts. The bolts shall operate simultaneously from one key station with a special Bitt key.
* Kane 107® Bitt key lock
* Type 107N (four tumbler) (Egress not available with this option)
* Keyed both sides
1. Optional Emergency Releases:
* Lift-Quick™
* Push-Quick® release which conforms to NFPA 101 (5-2.1.7.1)
* Down-Quick™

2.08 **Hardware**

1. 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.
2. Each screen shall include adjustment screws (1/4-20 x 3/4" Philips pan head thread cutting screw) and 16-gauge 1-3/16" [30.1625] x 3/4" [19.05] steel scribes shall be supplied at the head and jambs if required.
3. 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**

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

**PART 4 ENVIRONMENTAL REPORTING**

4.01 **LEED Materials and Resources**

1. Recycled Content: This product contributes toward satisfying Credit 4 under LEED.
2. Regional Material – This product can contribute toward satisfying Credit 5 under LEED.