

SECTION 10 8213
EQUIPMENT SCREENS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Steel screening for enclosing roof top mechanical equipment.
2. Steel assembly framing for direct attachment of screening panels to mechanical equipment; no base or curb required unless shown otherwise on drawings.
3. Telescoping steel supports to permit easy access to mechanical equipment for servicing.

B. Products Not Installed or Furnished in This Section:

1. Touch-up painting required for scratches and screw heads.
2. Field painting of prime painted screens

1.02 RELATED SECTIONS

- A. Section [23 7000] - Roof Top Units.

1.03 REFERENCES

A. American Society of Civil Engineers.

1. ASCE 7-10 - Minimum Design Loads for Buildings and Other Structures.

B. International Building Code.

1. IBC 2012.

1.04 SYSTEM DESCRIPTION

A. Design Criteria:

1. Manufacturer is responsible for the structural design of all materials, assembly, and attachments to resist snow, wind, suction, and uplift loading at any point without damage or permanent set.
2. Framing shall be designed in accordance with the ASCE to resist the following loading:
 - a. ASCE 7-10 - Minimum Design Loads for Buildings and Other Structures; American Society of Civil Engineers.

1.05 SUBMITTALS

- A. Product Data: Submit manufacturer's catalog data, detail sheets, specification, and other data sufficient to indicate compliance with these specifications.
- B. Shop Drawings: Indicate layouts heights, component connection details, and details of interface with adjacent construction. Mark data to indicate:
 - 1. Roof top mechanical equipment to be enclosed.
 - 2. As-built site conditions and dimensions and indicate unit size and adjacent construction clearly on shop drawings.
 - 3. Indicate access location to area behind the screen.
- C. Samples:
 - 1. Color Selection: Submit paint chips with full range of colors available for Architect's selection.
- D. Closeout Submittals: Warranty documents, issued and executed by manufacturer, with continued care instructions.

1.06 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with requirements of building authorities having jurisdiction in Project location.
- B. Manufacturer Qualifications: Minimum seven (7) years documented experience producing systems specified in this section.
- C. Pre-Installation Meeting:
 - 1. Convene seven (7) calendar days prior to scheduled beginning of construction activities of this section to review requirements of this section.
 - 2. Require attendance by representatives of the installing subcontractor, (who will represent the system manufacturer) and other entities directly affecting or affected by construction activities of this section.
 - 3. Notify Architect four (4) calendar days in advance of scheduled meeting date.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and material.
- B. Storage and Handling: Protect materials and finishes during handling and installation to prevent damage.

1.08 PROJECT CONDITIONS

- A. Field Measurements: Take measurements of actual Roof top unit for fit without gaps. Indicate measurements on shop drawings fully documenting any field condition that may interfere with the screen system installation.

1.09 COORDINATION

- A. Installer for work under this Section shall be responsible for coordination of panel and framing sizes and required options with the Contractor's requirements.
- B. Request information on sizes and options required from the Contractor.
- C. Submit shop drawings to the Contractor and obtain written approval of shop drawing from the Contractor prior to fabrication.

1.10 WARRANTY

- A. If any part of the rooftop equipment screen fails because of a manufacturing defect within one year from the date of substantial completion, the manufacturer will furnish without charge the required replacement part(s). Any local transportation, related service labor or diagnostic call charges are not included.
- B. This warranty does not cover failure of your rooftop equipment screen if it is damaged by the Owner, or if the failure is caused by improper installation. In no event shall Warrantor be liable for incidental or consequential damages.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Linea Screens by ModWerks
 - 2. Manufacturer Contacts: Ross Wojcik (502) 939-4110
ModWerks@hts.com
www.LineaScreen.com

2.02 MATERIALS

- A. Framing: Galvanized steel tubing.
- B. Brackets: galvanized steel, welded and galvanized painted.
- C. Panel material [choose from options]:
 - 1. Solid metal panel, 26 gauge, [R-Panel] [U-Panel] [Corrugated Panel]. Panel to be painted and suitable for outdoor installation. Corrugation direction should be [vertical] [horizontal] to meet Architect's specifications.
 - 2. Open-air louver [choose from options]:
 - a. 238, 38% open, 2" blades.
 - b. 453, 53% open, 4" blades.
 - c. 451-O, open-ended frameless louver, 51% open, 4" blades.

d. SB6, sound-block, 38% open, 6" thick, with sound attenuation.

3. Custom filler panel, TBD.

D. Hardware for installation including bolts, nuts, washers, screws, and plates to be stainless steel or galvanized steel, suitable for outdoor use.

2.03 FABRICATION

- A. Framing: Provide fully welded tube framing with adjustable attachment points. Individual frames shall not be wider than 96". Intermediate cross supports shall be horizontal and/or vertical to meet design loads and to provide additional stiffness, support, or attachment points. Frames shall be true and square, with flush edges.
- B. Top and side trim shall be galvanized steel. Trims shall be painted to match the panel material or to meet Architect's specifications.
- C. Panel materials to be cut to size for fitment into the top and side trim. Panel materials shall be mechanically fastened to the framing. Fasteners shall be located a minimum of 24" o/c in one direction and 24" o/c in the perpendicular direction.
- D. Vertical and horizontal support members shall be an adjustable, telescoping design to allow:
 - 1. Adjustment due to sloping roofs.
 - 2. Unobstructed pathways for service personnel, minimum 48" wide, around the perimeter of the mechanical equipment, or as specified.
- E. Attachment bracket to the mechanical equipment shall not allow penetration of the walls or flat roof of the equipment. Attachment shall only penetrate the roof overhang, base rails, or other corner members that do not compromise the weatherproof cabinet.
- F. The screening system shall extend flush to the top of the mechanical equipment.
- G. The screening system shall extend to the bottom of the mechanical equipment, or to a predetermined point below that level.
- H. Weighted ballast boxes (where required) shall rest on the roof surface with a protective pad beneath.
 - 1. Boxes shall be galvanized steel construction with galvanized or stainless-steel hardware. Ballast boxes fasten to the screen frames with horizontal and diagonal members.
 - 2. Boxes shall be located and sized to offset wind loads throughout sections of screening that are not otherwise stabilized. Wind loads determined as specified on plans or by calculated wind load charts.

2.04 FINISHES

- A. Color: TBD from color chart.

PART 3 - EXECUTION

3.01 EXAMINATION

Examine conditions under which construction activities of this section are to be performed.

1. Submit written notification to Architect and Screen manufacturer if such conditions are unacceptable.
2. Beginning erection constitutes installer's acceptance of conditions.

3.02 INSTALLATION

- A. Installation is to be performed only by manufacturer's certified installers.
- B. Install units in accordance with the manufacturer's instructions and approved shop drawings. Keep perimeter lines straight, plumb, and level. Provide brackets, anchors, and accessories necessary for a complete installation.
- C. Fasten structural supports to mechanical equipment without damaging operation of the unit.
- D. Attachment bracket to the mechanical equipment shall not allow penetration of the walls or flat roof of the equipment. Attachment shall only penetrate the roof overhang or other corner members that do not compromise the weatherproof cabinet.
- E. Provide vertical and horizontal supports as required by approved shop drawings so that the panels are supported uniformly.

3.03 ERECTION TOLERANCES

- A. Maximum misalignment from true position: 1/4".

3.04 CLEANING AND PROTECTION

- A. Remove all protective masking from material immediately after installation.
- B. Protection:
 1. Ensure that finishes and structure of installed systems are not damaged by subsequent construction activities.
 2. If minor damage to finishes occurs, repair damage in accordance with manufacturer's recommendations; provide replacement components if repaired finishes are unacceptable to Architect.
 3. Prior to substantial completion, remove dust or other foreign matter from component surfaces; clean finishes in accordance with manufacturer's instructions.

END OF SECTION