

SECTION 12497

EXTERIOR VENETIAN BLINDS

(HELLA)

PART 1 - GENERAL

1.1 SUMMARY and SCOPE of WORK

- A. Section includes design and provision of (electrically) (manually) operated fully adjustable, aluminum slat, solar control louver system for mounting on EXTERIOR side of vertical windows.
- B. SCOPE includes furnishing and installation of Exterior Venetian Blinds, including all accessories, motors, controls fittings and related items for a complete job.
- C. Not Included: Electrical work, hook-up, wire and wiring are not part of this work.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
 - 2. ASTM B221 - Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.

1.3 SUBMITTALS

- A. Product Data: Listing components, operating hardware, and accessories for louver system showing compliance with specified requirements.
- B. Shop Drawings: Showing layout, materials, dimensions, tolerances, method of anchorage, and installation details.
- C. **Louver system load calculations**, 65 MPH windspeed.
- D. Samples:
 - 1. Finishes for selection by Architect.
 - 2. 6 inches long louver slat sample with specified finish.
- E. Installation, operation, and maintenance instructions.

1.4 QUALITY ASSURANCE

- A. Sole Source Responsibility: Complete sun control louver system including attachment hardware, operating mechanism, shall be provided by single firm to ensure compatibility of components and functional operation.
- B. Manufacturer: Company specializing in design and fabrication of operable sun control louver systems with 20 years minimum successful experience.
- C. Installer: Experienced and factory certified in installing sun control louver systems of type specified and approved by louver manufacturer for installing system. Minimum 5 years of experience.
- D. **Design and install sun control louver system to comply with wind speed requirements for Project location.**
- E. Installation of electrical operators and controls in accordance with National Electric Code (NEC) requirements and local building codes by others. All motors to be 12 volt or 110 V systems

- F. Mockups: Build mockups to demonstrate aesthetic effects and set quality standards for fabrication and installation.
 - 1. Build mockup of size to fit mockup required for one (1) exterior sun-control blind unit

1.5 WARRANTIES

- A. Provide under provisions of Section 01700 "Project Closeout:"
 - 1. 3 years manufacturer's warranty to cover sun control louver system against manufacturing defects.
 - 2. 1 year installer's warranty to cover defects in installation of system.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. The basis of this specification is the Venetian Blind System by HELLA. Only the products provided by one of the following manufacturers are acceptable:
 - 1. HELLA External Venetian Blind System. USA distributor, Savannah Trims, Inc. 3567 91 street Ste/4, Lake Park, Florida, 33403. 1-866-640-0850. www.savannahtrims.com
 - 2. HI-Tech Blinds & Screens, LTD., Roseland Australia
 - 3. Substitute manufacturers may be acceptable, at the sole discretion of the Architect. Only equal products will be considered. Substitutions must be submitted for architects review, for receipt by the Architect, a minimum of 21 days prior to the bidding date, and submittals must include all test data, product samples and literature necessary for the Architect to make a fully informed decision. Approval is at he sole discretion of the Architect.
- B. Requests to use equivalent products of other manufacturers must be submitted in accordance with Section 01600 "Substitutions."

2.2 SUN CONTROL LOUVER SYSTEM

- A. Basis-of-Design Product: HELLA External Venetian Blind system
- B. Size, configuration, and layout: Horizontal installation as indicated on Drawings.
- C. Side guide channel assembly:
 - 1. Side Channels shall be extruded aluminum alloy with PVC inserts for reduced noise levels and increased lifespan. Provide fixing channels fro Faber's standard hardware accessory line. Single or double side channels will be furnished as the design dictates.
 - 2. Slatts shall be 3.0 inch (80 mm) wide or 4.0 inch (100 mm) and capable of 160 degree rotation range.
 - 3. Slatting Hardware: Ladder Braid, Lifting Tape, tilt rods and Pelmet as required and detailed.
 - 4. Drive shaft: Hexagonal aluminum tube connected to slat holders. Rotating drive shaft tilts louver slats.
- D. Auxiliary support framing: Where required by Project conditions design and provide aluminum channels and angles as louver system support framing.
- E. Support brackets: Provide brackets for anchoring louver rack assembly to support framing.
 - 1. Type: Aluminum fabrications of type, size, and spacing to accommodate louver system and Project conditions.
 - 2. Provide brackets with appropriate fasteners for attachment to support framing.
 - 3. SUPPORT SPACING: Can be applied to both 3 and 4 inch blades....
Maximum width 14'-0", Maximum Drop 11'6"Maximum surface area cord control is 40 sq.ft.
Max surface area rod control: 110 sq.ft. Max area electrically controlled 260 sq.ft.

- F. Louver slats: Fabricate from 0.008 inch minimum extruded copper-free chemically pretreated and stove enameled in a color selected from the standard Faber color chart.
- G. Nominal Slatt width: 3 or 4 inches. All louvers must open to 160 Degrees.
- H. Finish:
 - 1. Louver slats, facia and related exposed parts shall have paint finish with color as selected by Architect from manufacturer's full range.
 - 2. Brackets and other attachment components: Mill finish aluminum.
- I. Fabrication: Preassemble louver system at factory. Minimize requirements for field splicing and assembly. Disassemble units as required for shipping and handling. Label units for reassembly and installation at site.

2.3 MANUAL OPERATOR

- A. Provide manual operators for sun control louver system. Operator to permit variable shading angles plus fully opened and closed positions.
- B. Gear box: 3 to 1 ratio gear with steel or brass parts, completely enclosed with 100% ball bearing mountings..
- C. Provide detachable rod and handle for inserting into gear box. Length to be sufficient for operating louver system from floor position.

2.4 MOTORIZATION

- A. Operate as designed by Architect in consultation with the Faber Dealer.
 - For details contact Mr. Eugene Kennedy at 1-866-640-0850
- 2.5 OPTIONAL EQUIPMENT such as solar controls, time controls and Wind Monitor Equipment are available (Architect to consult Savannah Trims for application and details of performance).

PART 3 - EXECUTION

3.1 PREPARATION

- A. Field verify dimensions prior to commencing fabrication.
- B. Coordinate electrical requirements to ensure proper power supply is provided for motorized operators.
- C. **Electrical wire, wiring and conduit are not part of this specification.**
- D. Examine site conditions and verify that support elements are properly sized, prepared, and ready to receive louver system.

3.2 INSTALLATION

- A. Installer must be a factory or distributor certified installer and must Install exterior blind system in accordance with manufacturer's instructions and approved shop drawings. Coordinate with installation of windows, and ceiling and wall finishes.
- B. Accurately space and securely attach brackets to support structure. Connect louver rack assembly arms to brackets.
- C. Adjust threaded bracket suspension rods to ensure louvers are horizontal and rack assembly arms are correctly spaced and aligned.

D. Closely fit joints of exposed connections. Ensure that exposed to view connections are uniform and neat.

3.3 TESTING, ADJUSTING, AND DEMONSTRATING

A. After installation, test louver operation. Cycle louvers open and close a minimum of five times. Verify opening and closing operation and that movement limits are accurately and uniformly set. Verify louvers do not bind.

B. Verify that control mechanisms function properly.

C. Correct deficiencies, adjust system for smooth operation, and retest.

D. Demonstrate operation and maintenance of sun control louver system to Owner's representative.

3.4 CLEANING: Final cleaning by general contractor.

END OF SECTION