

AWNING WORKS INC.TM

SECTION 133400

GENNIUS ALUMINUM RETRACTABLE COVER SYSTEMS ENGINEERED STRUCTURES

DESCRIPTION

The Genius is a retractable cover system custom made to protect against sun and rain, affixed to a supporting wall, existing structure or free standing and has width dimensions in a single unit up to 42'-8" and projection dimensions up to 26'-3". It consists of an aluminum structure and a folding canvas. The fabric is supported by intermediate supporting crossbeams set parallel to one another approximately every 22 inches. The Genius has a complete rain water management system that has patented guiderail gaskets, integrated gutter and integrated downspouts. The Genius system is set in motion by a radio-controlled motor. You can create a "retractable room" with optional integrated "zip" drop curtains, in the front, and on the sides underneath a fixed fabric gable wing.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fabricated engineered structure and components including the following:
 - 1. Aluminum structure.
 - 2. Aluminum integrated drainage gutter system.
 - 3. Motorized water-proof canvas supported with aluminum crossbeams, tooth belt drive system.
- B. Wall accessories for fabricated engineered structures including the following:
 - 1. Vertical roll-up system with various fabric options.
 - 2. Sliding glass doors.
- C. Roof accessories for fabricated engineered structures including the following:
 - 1. Swag Fabric for elegance and interior color coordination.
 - 2. Lighting.
 - 3. Sound.

AWNING WORKS INC.TM

D. Functional options for engineered structures including the following:

1. Side Gables
2. Integrated Water Management System

1.2 RELATED SECTIONS

A. Section 03300 Cast-In-Place Concrete: concrete pad, foundations and anchor bolts.

B. Section 08810 Glass: Glass and glazing requirements for glazed openings.

C. Section 09900 Paints and Coatings: Finish painting of structural members, doors, roof, curbs and factory prime painted miscellaneous items.

D. Section 050513 Powder Coating.

E. Section 085000 Screens.

1.3 REFERENCES

A. Design Standards and Certifications

1. UNI EN 1990-1-1:2004, Eurocode 0 Part 1-1, Basis of Structural Design
2. UNI EN 1991-1-1:2004, Eurocode 1 Part 1-1, Actions of Structures
3. UNI EN 1999-1-1:2002, Eurocode 9 Part 1-1, Design of Aluminum Structures – Part 1-1: General Structural Rules
4. UNI EN 13561:2004, External Blinds, Performance Requirements Including Safety
5. UNI 10949:2001, Safety of Equipment for Fairs and Fun Parks – Tents, Temporary and/or Traveling Textile Structures: Design, Construction, Assembly and Maintenance
6. UNI EN 1998-1-1:2005, Eurocode 8 Part 1, Design of Structures for Seismic Resistance
7. TUV UNI EN IO 14001:2004 Certification on Environmental Management and PEFC Certification on Sustainable Forest

AWNING WORKS INC.TM

8. TUV UNI EN ISO 9001:2000 Certification For Attentive Customer Satisfaction

1.4 DEFINITIONS:

- A. Structure Width: Measured from outside to outside of pillar.
- B. Structure Projection: Measured from wall to outside of front pillar.
- C. Wall Height: Measured from guiderail mount to the floor.
- D. Post Height: Measured from the top of aluminum post to the bottom of base plate.
- E. Bay Spacing: Measured from centerline to centerline of primary frames for interior bays and from centerline of the first interior frame to outside of end wall girths for end bays.

1.5 DESIGN REQUIREMENTS

- A. Provide factory built prefabricated structures and shelters capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated.
- B. Design Loads: Determine loads based on the following minimum requirements:
 - 1. Wind pressure: Grade 6 on Beaufort scale.
- C. Energy Code: Provide factory built fabricated engineered structures that meet energy code requirements for the state in which the structure will reside.

1.6 PERFORMANCE REQUIREMENTS

- A. Cooperate with regulatory agency or authority and provide data as requested by authority having jurisdiction.

1.7 QUALITY ASSURANCE

- A. Manufacturer and Certified Installer Qualifications: Company specializing in manufacturing and installation of retractable prefabricated structures and shelters with a minimum documented experience of 25 years.

AWNING WORKS INC.™

B. Prefabricated Components: Comply with manufacturer's published literature for products meeting indicated design loads in accordance with state and local requirements as applicable.

C. Pre-installation Meetings: Conduct meetings to verify project requirements, substrate conditions, utility connections, manufacturer's installation instructions and warranty requirements. Comply with Division 1 requirements.

1.8 DELIVERY, STORAGE AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Protect all components and accessories from corrosion, deformation, damage and deterioration when stored at job site. Keep materials free from dirt and foreign matter.

C. Deterioration when stored at job site. Keep materials free from dirt and foreign matter.

1.9 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.10 WARRANTY

A. Manufacturer's Warranties:

1. Provide manufacturer's 5 and 6 year limited warranty on products materials and workmanship from date of shipment.

2. Provide manufacturer's limited lifetime warranty on structural materials and workmanship from date of shipment.

B. Provide manufacturer's warranties on all accessory items provided such as, but not limited to lights, coatings and fabrics.

AWNING WORKS INC.TM

PART 2 PRODUCTS

2.1 MANUFACTURERS and INSTALLERS

A. Acceptable Manufacturer: KE Durasol Awnings, 445 Bellvale Rd. Chester, NY 10918, (P) 888 Durasol (F) 845-610-1101, web: www.durasol.com

A.1 Certified Installer : AWNING WORKS INC, Clearwater Florida 33764

866 873-2941, web: www.awningworksinc.com

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 STRUCTURAL

A. Engineered retractable cover system that affixes to supporting wall:

1. Frame Members: Aluminum extrusions.
2. Hardware: AISI 304 stainless steel and 10/10 Aluminum.
3. Radio controlled motorized waterproof roof.

B. Dimensions:

1. Pillar Height: _____.
2. Overall Width: _____.
3. Overall Length: _____.

C. Pillar and Guiderail Spacing: Uniform/Custom bay widths; dimension as recommended by manufacturer.

D. Pillar and Guiderail Spacing: As indicated on the drawings.

2.3 MATERIALS

A. Electrochemical anodized aluminum, meeting DIN 50939 requirements.

B. AISI 304 stainless steel for high corrosion resistance for use in all bolts, screws, brackets and supports.

C. Naizil PS Cover Fabrics

1. Excellent durability and mold protection
2. TITAN W lacquering protective screen that increases the life and keeps the material cleaner.
3. PS cover blackout fabrics offer 100% UV protection.
4. Fabrics are self-extinguishing and are fire retardant compliant with the California State Fire Marshall's Code Section 13115.

2.4 PREFABRICATED STRUCTURES

A. Engineered Structures: As manufactured by KE Durasol, are custom made. Dimensions shown reflect a single fabric unit and single motor operation:

1. Size: 1 Bay: Maximum dimension 14'-9" by 21'-4".
2. Size: 2 Bay: Maximum dimension 29'-6" by 21'-4".
3. Size: 3 Bay: Maximum dimension 42'-8" by 21'-4".
4. Pitch required: supplied by manufacturer.

B. Building Style

1. Affixed retractable motorized cover system.

C. Frame Finish

1. Finish: From available manufacturer selection.
2. Finish: Custom color as selected by the Architect/Designer.

2.5 EXECUTION

A. Examination

1. Examine supporting foundations for compliance with manufacturer's requirements including installation tolerances and other conditions affecting performance of supporting members.
2. Check installed anchor bolts for accuracy. Verify that load bearing surfaces are ready to receive work.
3. Verify the rough-in of required mechanical and electrical services prior to placement of the structure.

AWNING WORKS INC.TM

B. Preparation

1. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
2. Do not proceed with installation until substrates have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions. Clean surfaces thoroughly prior to installation.
3. Commencement of installation constitutes acceptance of conditions.

C. Installation

1. Install in accordance with manufacturer's instructions.
2. Installation by authorized dealer using certified Durasol trained installers. Upon completion, installation must be certified by qualified authorized factory installer.
3. Separate dissimilar materials using nonconductive tape, paint or other material not visible in finished work.
4. Place on prepared concrete foundations and slabs provided as specified under Section 03300.
5. Anchor securely in place, allowing for required movement, including expansion and contraction.
6. Connect mechanical services as specified under Division 15.
7. Connect electrical services as specified in Division 16.

D. Protection

1. Protect installed products until completion of project.
2. Touch-up, repair or replace damaged products before substantial completion.

2.6 BUILDING ACCESSORIES

A. Vertical Rollup Systems: Wind resistance up to class 3 (as per UNI EN 13561 and EEC Machine Directive 98/37/CE).

1. Transparent: From available manufacturer selection.
2. Solar Screen Fabrics: From available manufacture selection.
3. Insect Screen: From available manufacture selection.
4. Customer's own fabric (verification required for fabric to ensure build quality).
5. Manual operation.
6. Motorized control.

B. Sliding Glass Doors

1. Information will need to be supplied.

C. Swag Fabric – non load bearing fabric lining.

1. Solids: available manufacturer's selection.
2. Stripes: available manufacturer's selection.
3. Customer's own material (consult with factory for material approval).

D. Lighting

1. Lighting product from available KE Durasol Lighting Accessories.

E. Sound

1. Sound product from available KE Durasol Lighting Accessories.

END OF SECTION.