SECTION 083323.13

HIGH-PERFORMANCE OVERHEAD COILING DOORS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Rubber High-Performance Overhead Coiling Doors.

1.2 RELATED SECTIONS

A. Section 05500 - Metal Fabrications: Support framing and framed opening.

B. Section 06200 - Finish Carpentry: Wood jamb and head trim.

C. Section 08710 - Door Hardware: Product Requirements for cylinder core and keys.

D. Section 09900 - Painting: Field applied finish.

E. Section 16130 - Raceway and Boxes: Conduit from electric circuit to door operator and from door operator to control station.

F. Section 16150 - Wiring Connections: Power to disconnect.

1.3 REFERENCES

A. NEMA – National Electrical Manufacturers Association.

B. LED – Light Emitting Diode.

C. UL – Underwriters Laboratories.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 – Administrative Requirements.

B. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.

C. Product Data:
1. Manufacturer's data sheets on each product to be used.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Typical installation methods.

D. Samples for Initial Selection: Provide manufacturer's finish charts showing full range of colors and textures available for units with factory applied finishes.

E. Samples for Verification: Provide for each type of exposed finish on the following components in manufacturer's standard sizes:
1. Rubber curtain.

F. Closeout Submittals: Operation and maintenance data.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five years' documented experience.

B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.

C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity. Provide operators and other accessories from sources acceptable to door manufacturer.

D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
   1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
   2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
   3. Retain mock-up during construction as a standard for comparison with completed work.
   4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.6 PRE-INSTALLATION CONFERENCE

A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store and handle in strict compliance with manufacturer's written instructions and recommendations.

B. Protect from damage due to weather, excessive temperature, and construction operations.

C. Store and dispose of all materials in accordance with federal, state, and local laws.

1.8 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 recommended limits.

1.9 WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Rytec Corporation: W223N16601 Cedar Parkway, Jackson, WI 53037 Phone: 888-467-9832; Fax: 262-677-2058; Email: info@rytecdoors.com; Web: https://www.rytecdoors.com

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00 – Product Requirements.

2.2 RUBBER HIGH-PERFORMANCE COILING DOORS

A. PowerTec™ MR as manufactured by Rytec Corporation:
1. Performance and Design Requirements:
2. Temperature Range: Minus 20 to 140 degrees F (minus 30 to 60 degrees C). Curtain: Two layers of Styrene Butadiene Rubber (SBR), each 1/8-inch (3.2 mm) thick, reinforced with 110-pound (50 kg) polyester cord center.
   a. Endlocks: Lubrication free locks attached to edges of curtain material.
   b. Curtain Edges: Uniform.
   c. Color: Black.
   d. Color: Blue. (optional EPDM material)
   e. Color: Gray. (optional EPDM material)
   f. Color: As indicated on Drawings.
   g. Color: To be selected by Architect.
   h. Size, WxH: 18 x 18 feet (5846 x 5846 mm).
   i. Size, WxH: As indicated on Drawings.
   j. Size, WxH: _____.
   k. For additional sizes, contact the manufacturer.
3. Guides: Two-piece 7-gauge rolled steel.
   a. Endlocks shall move freely in guides at all times.
   b. Guides release curtain in case of accidental impact while remaining rigid during normal operation.
      1) Finish: Powder coated; safety yellow
      2) Additional color options available upon request. To be indicated on drawings.
4. Bottom Bar: Constructed of two angles bolted together with break out section to reduce risk of damage from accidental impacts.
   a. Finish: Powder coated; safety yellow.
   b. Resets without need to unbolt side frames.
   c. Includes rubber astragal edge seal at ground Rubber loop astragal to seal against the ground.
5. Hood: Optional: Right-angle hood for aesthetic appeal and curtain protection in exterior mount applications. Fits within head plates with intermediate supports as required.
   a. Material: 16-gauge, powder coated steel
      1) Finish: To match guide steel
6. Roll-Up Barrel: Curtain shall be rolled on a tube of sufficient size to carry the door load with a deflection of not more than 0.03 inch/foot (2.5 mm/m).
   a. Springs: 10,000 cycle springs concealed in seal spring pipe.
   b. End Brackets: Constructed of rolled steel and self-aligning bearings with cast iron housings to support drive tube.
   c. Head Plates: Square, constructed of 3/8-inch (9 mm) hot-rolled steel plate, powder coated gray and heavy-duty bearings with cast iron housings to support drive tube.
7. Drive: Manual chain hoist operation.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for substrate construction and other conditions affecting performance of the work.

B. Examine locations of electrical connections.

C. Proceed with installation only after all unsatisfactory conditions have been corrected.

D. Do not begin installation until the substrates have been properly constructed and prepared.

E. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.

B. Anchor to adjacent construction without distortion or stress.

C. Fit and align door assembly including hardware, plumb, level, and square to ensure smooth operation.

D. Make wiring connections between power supply and operator and between operator and controls.

3.4 ADJUSTING

A. Adjust hardware and moving parts so that doors operate smoothly throughout full operating range.

B. Adjust seals to provide a tight fit around the entire perimeter.

3.5 FIELD QUALITY CONTROL

A. Demonstrate proper operation to Owner.

B. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

C. Manufacturer’s Services: Coordinate manufacturer’s services in accordance with appropriate sections in Division 01.
   1. Preventative Maintenance: Repair or replace worn or defective components. Lubricate, clean, and adjust as required for door operation.
      a. Maintenance Frequency: Monthly.
      b. Maintenance Frequency: Quarterly.
   2. Parts and Supplies: Manufacturer's authorized replacement parts and supplies.
   3. Callback Service: Maintenance, including emergency callback service during normal working hours.

3.6 CLEANING AND PROTECTION

A. Clean products in accordance with the manufacturer’s recommendations.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION