SECTION 083323.13
RAPID UPWARD COILING DOORS
MODEL 884

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Interior and exterior high-speed coiling fabric doors.

1.02 RELATED REQUIREMENTS

A. Section **<< 260583 - Wiring Connections>>**: Power to disconnect.

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.

B. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2023.

C. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014 (Reapproved 2021).

D. DASMA 403 - Specification for High Speed Doors and Grilles; 2024.

E. FBC TAS 201 - Impact Test Procedures; Testing Application Standard; 1994.

F. FBC TAS 202 - Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure; Testing Application Standard; 1994.

G. ITS (DIR) - Directory of Listed Products; Current Edition.

H. UL (DIR) - Online Certifications Directory; Current Edition.

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's standard literature showing materials and details of construction and finish.**<< Include data on electrical operation.; or None - N/A>>**

B. Shop Drawings: Indicate rough and actual opening dimensions, anchorage methods, hardware locations, and installation details.

C. Manufacturer's Instructions: Indicate installation sequence and installation, adjustment, and alignment procedures.

D. Manufacturer's qualification statement.

E. Installer's qualification statement.

F. Maintenance Data: Indicate **<< lubrication requirements and frequency; periodic adjustments required; and _____>>**.

G. Specimen warranty.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least **<< three; or _____>>** years of**<< documented; _____; or None - N/A>>** experience.

B. Installer Qualifications: Company specializing in performing work of type specified and with at least **<< three; or _____>>** years**<< documented; _____; or None - N/A>>** experience**<< and approved by manufacturer; or None - N/A>>**.

C. Products Requiring Electrical Connection: Listed and classified by **<< ITS (DIR); UL (DIR); testing firm acceptable to authorities having jurisdiction; or ___>>** as suitable for purpose specified.

1.06 DELIVERY, STORAGE, AND HANDLING

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

B. Protect materials from exposure to moisture. Do not deliver until after wet work complete and dry.

C. Store materials in dry, warm, ventilated weathertight location.

1.07 WARRANTY

A. Manufacturer Warranty: Provide **<< 5-year; or _____>>** manufacturer warranty. Complete forms in **<<Owner>>**'s name and register with manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Wayne Dalton; www.wayne-dalton.com; 1 (800) 827-3667.

B. Substitutions: Not permitted.

2.02 INTERIOR AND EXTERIOR HIGH-SPEED COILING FABRIC DOORS

A. Wayne Dalton; Model 884 ADV-Xtreme strutted exterior high-speed fabric door.

1. Curtain Fabric: Reinforced polyvinyl chloride (PVC) curtain.

2. Width: **<< _____feet (_____mm)>>**.

3. Height: **<< _____feet (_____mm)>>**.
4. Mounting: Surface-mounted **<< on side indicated on drawings; interior side; exterior side; or _____>>**.
5. Performance Standards: **<<DASMA 403>>** requirements for high-performance doors.
6. Opening Speed: Door to operate at variable speed up to **<< 55 inches (1397 mm)>>** per second.
7. Closing Speed: Door to operate at variable speed up to **<< 40 inches (1016 mm)>>** per second.

8. Operation Cycles: Drive motor and gearbox capable of operating for not less than one million cycles. One operation cycle is complete when door is opened from closed position to fully open position and returned to closed position.
9. Usage Classification: Heavy duty. No chain and sprocket allowed.
10. Durability: Doors to operate at minimum of one million cycles when selected, installed, operated, and maintained.
11. Wind Load: Design door assembly to withstand ultimate static pressure load of **<< 22 psf (1053 Pa)>>** in accordance with **<<ASTM E330/E330M>>**.
12. Curtain Fabric: Five-layer exterior door curtain fabric, **<< 65 oz/sq yd (2204 g/sq m)>>** nominal.
    a. Fabric Color: **<< Exterior orange; Exterior red; Exterior gray; Exterior blue; or _____>>**.
13. Fabric Curtain Construction: Sectional design comprised of multiple fabric panels with interlocking aluminum hinges acting as integral wind bars.

14. Vision Panels: **<< 20 inches (508 mm)>>** high, spaced evenly across door.
    a. Material: Clear PVC.
15. Curtain Retainers: Nylon 66 curtain lock at outside edges of curtain engaged inside guides under wind load.
16. Wind Strut: Curtain panels connected by extruded aluminum wind ribs to retain panel sections under wind load and to allow for easy panel replacement. Wind ribs **<< 1-1/2-inch (38 mm)>>** 6063 T6 extruded aluminum, powder-coated yellow for high visibility. End of wind ribs include roller locks.
17. Curtain Articulating Wind Ribs: Curtain panels connected by extruded aluminum articulating wind ribs to retain panel sections under wind load and to allow for easy panel replacement. Wind ribs comprised of two **<< 2-inch (51 mm)>>** 6063 T6 extruded aluminum, totaling to **<< 4 inches (102 mm)>>** high; powder-coated yellow for high visibility; articulating to allow for smooth operation of door.
18. Bottom Bar: Fully padded, breakaway bottom bar full width of opening, sufficient to maintain bottom edge of curtain parallel to door threshold.

    a. Finish: Powder-coated **<< yellow; or _____>>**.
    b. Upon impact, bottom bar releases from guides and door operation stops.
        1) Controller indicates problem encountered and instructs operator on steps to fix problem.
        2) Detection required via solid-state device for accuracy; allow no external electromechanical switch.
        3) Press button on control panel to reset door after impact.
        4) Provide door with wireless failsafe electric safety edge.
        5) Include field-adjustable breakaway sensitivity.
19. Weatherstripping and Seals: Vinyl brush seal, resilient type, located at guide edges and where curtain enters hood enclosure. Vinyl-wrapped bottom seal, sensing edge attached to bottom bar.

20. Side Guides, Channels: Constructed of high-strength steel with members fully bolted together. Guides have full-height weather seal.

    a. Finish: Premium powder coat in **<< safety yellow; or _____>>**.

21. Door Header: Top-roll assembly fabricated of high-strength steel barrel, supported with powder-coated, high-strength steel brackets at each end with self-aligning bearings.
    a. Drum Barrel System: **<<ASTM A500/A500M>>** Grade B, high-strength steel pipe; minimum **<< 6-5/8-inch (168.3 mm)>>** diameter.
    b. Brackets: **<<ASTM A36/A36M>>** hot-rolled steel with heavy-duty, self-aligning bearings with cast iron housings; minimum **<< 1/4 inch (6 mm)>>** thick.
    c. Springless System: No balancing springs or counterweights permitted.
    d. Head frame provided with single brush seal along lintel.

    e. Finish: Premium powder coat in **<< black; or _____>>**.

22. Hood: **<< Top-roll assembly enclosed with external metal hood; or Not required>>**.

    a. Finish: **<< Black polyester topcoat; or _____>>**.
    b. Material: Galvanized steel with intermediate supports.

    c. Shape: **<< Square; Sloped; or _____>>**.

23. Motor Cover: **<< Not required; or Required>>**.
24. Steel Finish: **<< Premium powder coat; Zinc base coat with Premium topcoat; Anti-microbial powder coat; or _____>>**.
25. Obstruction Safety Detection:
    a. Dual infrared sensors mounted in-plane to door curtain at **<< 18 inches (457 mm)>>** and **<< 50 to 54 inches (1270 to 1372 mm)>>** from floor.
    b. Light curtain in-plane to travelling path of door curtain. Size: **<< 3 feet (914 mm); 6 feet (1829 mm); or _____ feet (_____ mm)>>**.
26. Reversing Safety Edge: Door provided with monitored failsafe electric safety edge. Controller indicates inoperable safety edge.
    a. Wireless connections between safety edge and controller required. No coil cords allowed.
    b. Require ground level replacement of bottom bar wireless system battery.
27. Operation: Direct drive motor and gearbox system with field-changeable universal handing and gearbox safety device.

28. Control Panel: Variable frequency drive NEMA 4X cULus listed, onboard self-diagnostic and service reminder, built-in padlockable fused disconnect, and easy-to-read LCD text screen for troubleshooting.
    a. Capable of monitoring and reporting on various operating conditions, including current operating status, current command status, current error status, hoist interlock status, service reminder status, and 24 VDC status.
29. Manual Override: Pull switch and hand chain allowing manual door operation during power outage and installation.
30. Limit System: Magnetic type providing absolute positioning with push-to-set and remote-setting capabilities. Limit system to synchronize with door during manual operation and supply power interruptions.
31. Timer to Close: Each door to have automatic closing controlled by adjustable hold-open time delay.

32. Operation Supply Voltage: **<< 208 VAC three-phase with transformer; 230 VAC three-phase; 460 VAC three-phase; 575 VAC three-phase with transformer; or _____>>**.
33. Actuation Device Options: Provide **<< push button; key switch; pull cord; loop detector; motion detector; treadle switch; radio control; wireless connection; and _____>>**.
34. Signaling Device Option: **<< Red and green LED warning lights; Horn and strobe combination; Rotating warning light; or _____>>**.
35. Optional LED Lighting System: Programmable light bar **<< 3 feet (914 mm)>>** tall with red, yellow, green lighting.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify **<< existing conditions; and _____>>** meet manufacturer's requirements before starting work.

B. Verify opening sizes, tolerances and conditions are acceptable.

3.02 INSTALLATION

A. Install in accordance with manufacturer's written instructions.

B. Use anchorage devices to securely fasten assembly to wall construction and building structure without distortion or stress.

C. Securely and rigidly brace components suspended from structure.**<< Secure guides to structural members only.; _____ .; or None - N/A>>**

D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

E. Coordinate installation of electrical service; see Section **<< 260583>>**.

F. Install enclosure and perimeter trim.

3.03 TOLERANCES

A. Maintain dimensional tolerances and alignment with adjacent work.

B. Maximum Variation from Plumb: **<< 1/16 inch (1.6 mm); or ___ inch (___ mm)>>**.

C. Maximum Variation from Level: **<< 1/16 inch (1.6 mm); or ___ inch (___ mm)>>**.

D. Longitudinal or Diagonal Warp: Plus or minus **<< 1/8 inch per 10 feet (3.2 mm per 3 m); or ____ inch per 10 feet (____ mm per 3 m)>>**.

3.04 ADJUSTING

A. Adjust operating assemblies for smooth and noiseless operation.

3.05 CLEANING

A. See Section **<< 017000 - Execution and Closeout Requirements>>** for additional requirements.

B. Clean installed components.

C. Remove labels and visible markings.

3.06 PROTECTION

A. Protect finishes until completion of project.

B. Touch up damaged finishes after Date of Substantial Completion.

END OF SECTION