

SECTION 083616
SELF-LIFTING SWING-OUT DOORS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Self-lifting swing-out doors and accessories.
- B. Related Work: The following items are not included in this Section and are specified under the designated Sections:
 - 1. Section 042000 - Unit Masonry Assemblies: Prepared opening in masonry. Execution requirements for placement of anchors in masonry wall construction.
 - 2. Section 061000 - Wood Blocking and Curbing: Rough wood framing and blocking for door opening.
 - 3. Section 079200 - Joint Sealers: Perimeter sealant and backup materials.
 - 4. Section 087100 - Door Hardware: Cylinder locks.

1.2 SUBMITTALS

- A. Submit under provisions of Division 01.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation manuals.
 - 4. Owners Manual with service information.
- C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, accessories and anchors, jamb details, connection details, anchorage spacing, hardware locations, and installation details.
- D. Verification Samples: For each finish product specified, two samples, minimum size 2 inches square, representing actual finish.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Wind Loads: Design and size components to withstand loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with applicable codes and as indicated on the Structural Drawings if applicable.
 - 1. Maximum design pressure of 25 lbs/sq ft.
 - 2. Maximum deflection of L/120.

- C. Installer Qualifications: Authorized representative of the manufacturer with minimum two years documented experience and/or be a factory trained and authorized installation company.
- D. Factory Inspections and Tests: All door frame and channel dimensions shall be maintained to 1/16 inch tolerance as provided on the engineering / production drawings. Each motor control unit shall be powered up in the factory to ensure proper operation prior to shipping. Each touch screen shall be powered up in the factory and tested for proper orientation prior to shipping.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and model.
- B. Storage: Store materials in a dry area indoor and protected from damage and in accordance with manufacturer's instructions.
- C. Handling: Handle and lift all items carefully during installation to prevent damage and protect finishes.

1.5 PROJECT CONDITIONS

- A. Pre-Installation Conference: Convene a pre-installation conference prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.
- B. Environmental Conditions: Prior to and during installation, environmental conditions shall be in accordance with door manufacturers latest published recommendations for temperature, rain, wind, humidity, ventilation, and illumination.
- C. Site Conditions: Opening shall be free and clear of debris, stored materials, scaffolding, and temporary walls as necessary for installers to perform the installation.

1.6 WARRANTY

- A. Warranty: Provide manufacturer's standard limited 1-year warranty against defects in material and workmanship through normal use and service.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Self-Lifting Swing-Out Doors: Flex by Renlita Doors North America, 903-583-7500, www.renlitausa.com.
 - 1. Description: Single horizontal panel; tilting vertically on hinge and gas strut system fixed to building structure to tilt outwards and upwards to the open position.
 - 2. Panel: Constructed from 2-1/2 inch by 1-1/2 inch (65 mm by 40 mm) top and side rails and 1-1/4 inch by 1-1/2 inch (32 mm by 40 mm) mid rails.
 - 3. Glazing, Single Pane: 1/4 inch (6mm) tempered safety glass.
 - 4. Glazing, Insulating Glass: 1/2 inch (12.5 mm) dual pane tempered insulating glass.
 - 5. Glazing Wedges: EPDM.
 - 6. Ferrous Metal Finish: All surfaces except working machine parts shall receive SSPC-SP6 abrasive blast cleaning and factory-applied powder coating, AAMA 2604 or better.

7. Aluminum Finish: SSPC-SP6 abrasive blast cleaning and factory-applied powder coating, AAMA 2604 or better.
8. Finish Color: As selected from manufacturers range of standard colors.
 - a. Sandstone.
 - b. Satin Black.
 - c. Bone White .
 - d. Chestnut Bronze.

B. Optional Insect Screen: Bug screen/sunscreen.

1. Mounting: Mount to interior face of door opening.
2. Operation: Manufacturers wireless remote.
3. Operator: DC electric motor equipped with obstruction sensing technology. Screen will reverse upon contact with an obstruction.
4. Power Requirements: 120V AC, 60Hz, Single Phase, 2 Amps.
5. Power is provided to motor control unit only. Screen operated by supplied remote controller.
6. Screen Color: As selected from manufacturer's standard finishes.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until the openings have been properly prepared in accordance with architectural drawings and approved shop drawings.
1. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
 2. Verify electric power is available if applicable.
- B. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions. Commencement of installation constitutes acceptance of conditions.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation. 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 doors in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
1. Furnish inserts and anchoring devices suitable for the installation of the units and consistent with the manufacturer's installation requirements. Coordinate delivery with other work to avoid delay.

2. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
3. Anchor assembly to wall construction and building framing without distortion or stress.
4. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
5. Fit and align door assembly including hardware.
6. Test for proper operation and adjust until satisfactory results are obtained.

3.4 DEMONSTRATION AND TRAINING

- A. Demonstrate operation to owner's personnel. Manufacturer's representative shall instruct Owner's representative in regular tenant provided maintenance and operation of installed doors.

3.5 CLEANING AND ADJUSTMENT

- A. Lubricate, test and adjust door assembly to smooth operation free from warp twist or distortion and in full contact with weather-stripping. Clean doors, frames and glass. Remove temporary labels and visible markings.

3.6 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning. Protect installed products until completion of project.
- B. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION