

SECTION 08 71 13
AUTOMATIC DOOR OPERATORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Automatic operators for sliding doors.

1.2 RELATED REQUIREMENTS

- A. Aluminum Frames Entrance Work: Section 08 41 13, ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS.
- B. Door Hardware: Section 08 71 00, DOOR HARDWARE.
- C. Access Control Devices: Division 28, ELECTRONIC SAFETY AND SECURITY.
- D. Electric General Wiring, Connections and Equipment Requirements: Division 26, ELECTRICAL.

1.3 APPLICABLE PUBLICATIONS

- A. Comply with references to extent specified in this section.
- B. ASTM International (ASTM):
1. B209-14 - Aluminum and Aluminum-Alloy Sheet and Plate.
 2. A1008/A1008M-15 - Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Baked Hardenable.
- C. Builders Hardware Manufacturers Association (BHMA):
1. BHMA A156.10-11 - Power Operated Pedestrian Doors.
- D. National Fire Protection Association (NFPA):
1. 101-15 - Life Safety Code.
- E. Underwriters Laboratories (UL):
1. 325-13 - Standard for Doors, Drapery, Gate, Louver, and Window Operators and Systems.

1.4 SUBMITTALS

- A. Submittal Procedures: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Submittal Drawings:
1. Show size, configuration, and fabrication and installation details.
- C. Manufacturer's Literature and Data:
1. Description of each product.
 2. Installation instructions.
 3. Warranty.
- D. Qualifications: Substantiate qualifications comply with specifications.

1. Manufacturer.
2. Installer.

E. Operation and Maintenance Data:

1. Care instructions for each exposed finish product.
2. Start-up, maintenance, troubleshooting, emergency, and shut-down instructions for each operational product.

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications:

1. Regularly manufactures specified products.
2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.
 - a. Provide contact names and addresses for completed projects when requested by Contracting Officer's Representative (COR).

B. Installer's Qualifications: Experienced installer, approved by the manufacturer.

1.6 WARRANTY

A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

B. Manufacturer's Warranty: Warrant automatic door operators against material and manufacturing defects.

1. Warranty Period: One year.

PART 2 - PRODUCTS

2.1 SYSTEM PERFORMANCE

- A. Comply with requirements of BHMA A156.10. Unless otherwise indicated on Drawings, provide operators that move doors from fully closed to fully opened position in three seconds maximum time interval, when speed adjustment is at maximum setting.
- B. Equipment: Conforming to UL 325. Provide key operated power disconnect wall switch for each door installation.
- C. Electrical Wiring, Connections and Equipment: Motors, starters, controls, associated devices, and interconnecting wiring required for installation. Equipment and wiring as specified in Division 26, ELECTRICAL.

2.2 PRODUCTS - GENERAL

- A. Basis of Design: Stanley Access Technologies.
- B. Provide door operators from one manufacturer.

- C. Provide one type of operator throughout project.
- D. Materials: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - 1. Headers, stiles, rails and frames: 6063-T5
 - 2. Extruded bars, rods, profiles and tubes: ASTM B221.

2.3 SLIDING DOOR OPERATORS

- A. Provide operators of size recommended by manufacturer for size, weight, and movement; for condition of exposure; and for long-term, operation under normal traffic load for type of occupancy indicated.
- B. Operator Function:
 - 1. Electric motor pulling door from closed to open position, stopping door by electrically reducing Voltage and stalling door against mechanical stop.
 - 2. Opening and Closing Speeds: Field adjustable.
 - 3. System permitting manual control of door in event of power failure.
- C. Power Operator:
 - 1. Completely assembled and sealed electromechanical operating unit including 95 W (1/4 hp.) DC shunt-wound permanent magnet motor with sealed bearings, located in aluminum case and filled with special lubricant for extreme temperature conditions. Rubber mount units with provisions for easy maintenance and replacement, without removing door from pivots or frame. Minimum service to be 240 VAC, 2.5 amps.
 - 2. Opening and Closing Cycle: Field adjustable.
- D. Operator Housing:
 - 1. ASTM B209, Type 6063-T5 aluminum alloy, 150 mm (6 inches) wide by 200 mm (8 inches) high by 3.2 mm (0.125 inch) thick, aluminum extrusions with enclosed end caps for application to 100 mm (4 inches) and larger frame systems.

2.4 POWER UNITS

- A. Self-contained, electric operated and independent of door operator.
 - 1. Capacity and size of power circuits according to automatic door operator manufacturer's specifications and Division 26 - ELECTRICAL.

2.5 DOOR CONTROLS

- A. Control Devices: BHMA A156.10; control opening and closing functions.

- B. Open doors when control device is actuated; hold doors in open positions; then, close doors after a set time period, unless safety device or reactivated control interrupts operation.
- C. Manual Controls:
 - 1. Push Plate Wall Switch: Recessed type, stainless steel push plate minimum 100 mm by 100 mm (4 inch by 4 inch), with 13 mm (1/2 inch) high letters "To Operate Door-Push" engraved on face of plate.
- D. Motion Detector:
 - 1. Mounting: Concealed.
 - 2. Detection Area: 1500 mm (60 inches) deep and 1500 mm (60 inches) across, plus or minus 150 mm (6 inches).
 - 3. Response Time: 25 milliseconds, maximum.
 - 4. Control Power: 24 Volt DC.
 - 5. Design units to be unaffected by cleaning material, solvents, dust, dirt and outdoor weather conditions.

2.6 SAFETY DEVICES

- A. Sliding Doors:
 - 1. Two photoelectric beams mounted at heights of 600 mm (24 inches) and 1200 mm (48 inches) in door frame.
 - 2. Overhead safety presence sensors at door head on both sides of opening.
 - 3. Recycle doors to full open position when beams are interrupted.
 - 4. Motion detector mounted on both sides of door for detection of traffic in both directions.

2.7 COMPONENTS

- A. Header: Fabricated from extruded aluminum and extending full width of automatic entrances to conceal operators, carrier assemblies, and roller tracks. Provide hinged or removable access panels for service and adjustment of operators and controls. Secure panels to prevent unauthorized access.
 - 1. Mounting: Concealed, with one side of header flush with framing.
 - 2. Capacity: Capable of supporting sliding panel weight up to:
 - a. Single Slide: 150 kg (330 lb).
- B. Carrier Assemblies and Overhead Roller Tracks: Manufacturer's standard carrier assembly that allows vertical adjustment of at least 3 mm (1/8 inch); consisting of urethane with precision steel lubricated ball-bearing wheels, operating on a continuous roller track. Support panels

from carrier assembly by load wheels and anti-riser wheels with factory adjusted cantilever and pivot assembly. Minimum two ball-bearing load wheels and two anti-rise rollers for each active leaf. Minimum load wheel diameter shall be 64 mm (2 1/2 inch); minimum anti-rise roller diameter shall be 51 mm (2 inch).

- C. Bottom Guides: Custom surface mounted bottom guide.
- D. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.
- E. Signage: Provide signage in accordance with ANSI/BHMA A156.10.

2.8 FINISH

- A. Class II, Clear Anodic Finish: AA-M12C22A31 Mechanical Finish: as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.40 mils minimum complying with AAMA 611-98, and the following:
 - 1. AAMA 607.1
 - 2. Applicator must be fully compliant with all applicable environmental regulations and permits, including wastewater and heavy metal discharge.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine and verify substrate suitability for product installation.
 - 1. Verify door opening is correctly sized and within acceptable tolerances.
- B. Protect existing construction and completed work from damage.

3.2 INSTALLATION

- A. Install products according to manufacturer's instructions and approved submittal drawings.
 - 1. When manufacturer's instructions deviate from specifications, submit proposed resolution for Contracting Officer's Representative consideration.
- B. Coordinate door installation with other related work.
- C. Install manual controls and power disconnect switches recessed or semi-flush mounted in partitions.
- D. Secure operator components to adjacent construction with suitable fastenings.

- E. Conceal conduits, piping, and electric equipment, in finish work.
- F. Install power units in locations shown.
 - 1. Where units are mounted on walls, provide metal supports or shelves for units.
 - 2. Ensure equipment, including time delay switches, are accessible for maintenance and adjustment.
- G. Push Plate Wall Switches Mounting Height: 1000 mm (40 inches) maximum, unless otherwise noted on the drawings or approved by Contracting Officer's Representative.

3.3 DEMONSTRATION AND TRAINING

- A. Instruct VA personnel in proper automatic door operator operation and maintenance.
 - 1. Trainer: Manufacturer approved instructor.
 - 2. Training Time: 2 hours minimum.
- B. Coordinate instruction to VA personnel with VA Contracting Officer's Representative.

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