

ARCHITECTURAL SPECIFICATION

TQ Manual Revolving Door

DIVISION 8 – DOORS AND WINDOWS SECTION 08470 – REVOLVING DOORS

PART I – GENERAL

1.01 SECTION INCLUDES

- A. This section covers the furnishing and installation of a complete Manual Revolving Door System. Provide complete system that has been fabricated and tested for proper operation. It includes curved sidewalls, canopy, ceiling, door wings, hardware, glass, speed control and emergency collapsing mechanism as required for installation.

1.02 RELATED SECTIONS

- A. Section 07915 - Sealants, Caulking and Seals
- B. Section 08400 - Entrances and Storefronts
- C. Section 08710 - Door Hardware
- D. Section 08810 - Glass and Glazing
- E. Section 09600 - Flooring
- F. Section 16123 - Electrical Supply and Termination

1.03 QUALITY ASSURANCE

- A. Manufacturer shall be a company specializing in the supply of manual revolving doors with a minimum of 10 years experience.
- B. Installer shall supply a factory-trained supervisor during installation of the door.

1.04 SUBMITTALS

- A. Submit project specific shop drawings and finish samples as required.
- B. Indicate pertinent dimensions, general construction, component connections and locations, anchorage methods and locations.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in manufacturer's packaging undamaged, complete with installation and operating manuals.
- B. Store off ground, under cover, protected from weather and construction activities.

1.06 PROJECT/SITE CONDITIONS

- A. Install revolving doors on finished floor only. Floor must be dead level at any point within the footprint of the revolving door.

1.07 WARRANTY

Boon Edam warranties its products against defects in material and workmanship for a period of one (1) year from the date of substantial completion or one and one half (1 ½) years from date of shipment. This warranty excludes glass breakage, normal wear on finishes or damage that occurs due to abuse, misuse or acts of God.

PART II – PRODUCTS

2.01 MANUFACTURER

TQ Manual Revolving Door as manufactured by:
Boon Edam, Inc., 4050 South 500 West, Salt Lake City, Utah 84123
(801) 261-8980 Fax: (801) 261-1612 Homepage: www.boonedam.com

2.02 DOOR CONSTRUCTION

- A. Curved Side Walls and Canopy: Shall have a standard inside diameter of 6'-6", 7'-0", 8'-0" and be manufactured from six (6) extruded aluminum posts, four (4) 6" high one-piece extruded aluminum canopies and two (2) extruded aluminum bottom rails.
- B. Door Wings: As designed and manufactured of 1 3/4" wide aluminum extrusions and reinforced with internal aluminum door corners for strength. Door wings must utilize removable horsehair weather stripping on three sides. Door wings must be capable of folding forward or backward allowing for emergency egress.
- C. Ceiling: Shall be fabricated of formed aluminum sheet in a pie-shaped configuration. Each section must be secured in position and removable only by authorized personnel.
- D. Tempered/Laminated Glass Ceiling (Optional): 11/16" clear tempered/laminated safety glass is available as an option. All glass shall meet ANSI standard Z 97.1. Speed control located in floor with glass ceiling option. There is no canopy with this option.

2.03 EQUIPMENT

- A. Speed Control: Overhead manual speed control that attaches to the top of the center rotating shaft inside the canopy and limits the rotation speed of the door to a preset RPM not to exceed 12 revolutions per minute. Operating in an oil bath, the centrifugal braking unit can be adjusted for lower maximum speeds to meet NFPA, BOCA requirements.
- B. Emergency Collapsing Mechanism: Precision-engineered door hangers and disks that allow the door wings to be collapsed, or folded, and stored in a bookfold position. Hangers and disks are finished in black and provide tension to hold the door wings in position until a strong force, not to exceed 130 pounds is applied to the outer stile of the door wing.
- C. Surface Applied Slide Bolt Locks: Two (2) standard 1 3/4" x 5 5/8" surface-mounted deadbolt locks finished to match door with removable, keyed cylinders that lock into the ceiling or floor on the two interior door wings.
- D. Two-Point Recessed Locks (Optional): Two (2) concealed two-point recessed locks with removable, Profile style keyed cylinders that lock into the ceiling and floor on the two interior door wings.
- E. Electric Locking (Optional): A fail-safe shaft and wing lock mechanism with a (2) position post-mounted key switch to activate locking. When engaged, the electric locking will prevent rotation or collapsing of the door wings. Electric locking is disengaged by loss of power or signal from building/fire/smoke alarm (Requires a minimum 12" canopy and a 110 Volt power service from above, by others)

2.04 HARDWARE/MATERIALS

- A. Tempered Glass: All flat glass in door wings shall be 1/4" clear tempered safety glass, all curved glass shall be 1/4" clear bent tempered safety glass. All glass shall meet ANSI standard Z 97.1.
- B. Laminated Glass (Optional): 7/16" clear curved laminated safety glass is available as an option. All glass shall meet ANSI standard Z 97.1.
- C. Tempered/Laminated Glass Ceiling (Optional): 11/16" clear tempered/laminated safety glass is available as an option. All glass shall meet ANSI standard Z 97.1.
- D. Aluminum Extrusions: All commercial grade extrusions shall be of aluminum alloy 6063-T6 per ASTM B-221.
- E. Aluminum Sheets: Shall meet ASTM B-209 and be of .063 minimum thickness.
- F. Weather Stripping: Genuine horsehair weather stripping on all required edges of door wings to provide a seal between door wings and drum that meets ASTM E-283.
- G. Bumpers: rigid, rubber-tipped bumper located on the top door rail of each door wing to prevent door wings from contacting one another when in the bookfold position.
- H. Glazing Seal: All glass to be sealed with push in glazing vinyl.
- I. Pivot: Floor mounted pivot under the center shaft to provide smooth rotation.

- J. Center Shaft: Extruded center shaft shall be of aluminum alloy 6061-T6 per ASTM B-221 with connections to the speed control and pivot.
- K. Push Bars: Provide 1 1/4" x 1/2" extruded aluminum push bar (1) per door wing finished to match door. (1" diameter aluminum, stainless steel, or architectural bronze push bar is optional.)

2.05 FINISH

The following finishes are available for the enclosure walls, rotating door wings and ceiling.

- A. Anodized Coatings
 - 1. AAMA 611 Architectural Class 1 Clear anodized Type AA-M10C22 A41
 - 2. AAMA 611 Architectural Class 1 anodized Type AA-M10C22 A42: Light, Medium and Dark Bronze, Black and Champagne.
- B. Painted Coatings
 - 1. AAMA 2605 Superior Performing Organic Coatings (e.g.: Duranar, Fluorpon; 70% Kynar Fluropolymers).
 - 2. AAMA 2604 High Performance Organic Coatings (e.g.: Powder Coating).
- C. Stainless Steel Clad Type 304
 - 1. #4 Brushed Satin
 - 2. #6 Brushed Satin Fine-Lined
 - 3. #8 Highly Polished (mirror finish)
- D. Bronze Clad Alloy #280 (Muntz Metal)
 - 1. #4 Brushed Satin
 - 2. #8 Highly Polished (mirror finish)

PART III – EXECUTION

3.01 INSTALLATION

- A. Inspection: Installer must examine the location and advise the Contractor of any site conditions unacceptable for proper installation of product. These conditions include but are not limited to the following:
 - 3. Door must be installed on finished floor.
 - 4. Finished floor must be dead level at any point within the footprint of the door.

Installation shall not begin until these conditions are met.

- B. Erection: Install revolving doors in accordance with manufacturer's printed instructions. Set units level, plumb, and with uniform hairline joints. Anchor securely into place. Use only factory trained installers.
- C. Adjustment: Installer shall adjust door and hardware for smooth operation and proper performance.
- D. Instruction: A factory-trained installer shall demonstrate to the owner's maintenance crew the proper operation of the door and the necessary service requirements such as lubrication, cleaning, and inspection of components upon completion of installation.
- E. Cleaning: Clean metal and glass surfaces carefully after installation to remove excess caulk, dirt and labels.

Boon Edam, Inc. reserves the right to change this specification at any time without notice.

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SECTION 08470 – REVOLVING DOORS

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- A. Submit project specific shop drawings and finish samples as required.
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- F. Lights Optional: Provide (4) 12V 20W Halogen lamps, 4 3/4" diameter lights to be recessed into ceiling. (110V power service required from above by others.)

2.04 HARDWARE/MATERIALS

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- E. Cleaning: Clean metal and glass surfaces carefully after installation to remove excess caulk, dirt and labels.

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