

**The Genuine. The Original.**



SECTION 08331

ROLLING FIRE DOORS

FIREKING® MODEL 641

Display hidden notes to specifier. (Don't know how? [Click Here](#))

**\*\* NOTE TO SPECIFIER \*\* Overhead Door Corporation; Rolling fire door products.**

**This section is based on the products of Overhead Door Corporation, which is located at:  
2501 S. State Hwy. 121, Suite 200  
Lewisville, TX 75067  
Toll Free: (800) 929-3667  
Phone: (469) 549-7100  
Fax: (972) -906-1499  
Web Site: [www.overheaddoor.com](http://www.overheaddoor.com)  
E-mail: [info@overheaddoor.com](mailto:info@overheaddoor.com)**

**Overhead Door Corporation pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door opener in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door Corporation products more often than any other brand.**

**This specification includes rolling fire doors. Overhead Door Corporation offers a wide array of rolling steel doors to meet the most demanding fire safety standards, unusual opening sizes and aesthetic requirements. Designed to close automatically in the event of a fire or alarmed event, our fire-rated doors are available for service door and counter applications in commercial, industrial, institutional and retail uses.**

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

**\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.**

- A. Rolling counter fire doors.
- B. Rolling fire doors with integral frames.

### 1.2 RELATED SECTIONS

**\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.**

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

### 1.3 REFERENCES

**\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.**

- A. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM A 666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- C. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- D. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- E. NEMA MG 1 - Motors and Generators.
- F. NFPA-80 – Standard for Fire Doors and Fire Windows.

### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Fire Rated Assemblies: Provide assemblies complying with NFPA 80 and listed in UL Directory or Intertek Testing Services (Warnock Hersey Listed) Directory.

### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- 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. Details of construction and fabrication.
  - 4. Installation methods.
- C. Shop Drawings: Include detailed plans and elevations, details of framing members, anchoring methods, clearances, hardware, and accessories.

**\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.**

- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

- G. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience.
- B. Installer Qualifications: Installer Qualifications: Company approved by manufacturer, specializing in performing Work of this section with minimum three years experience, with IDEA Certified Installers and service technicians on staff.

## 1.7 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 is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

## 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 absolute limits.

## 1.9 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent materials to avoid damage to installed materials.

## 1.10 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's two year limited warranty.

**\*\* NOTE TO SPECIFIER \*\* Include the one of the following Optional PowderGuard Finish warranty paragraph if included for the Door(s) specified. Delete if not applicable.**

- B. PowderGuard Finish
  1. PowderGuard Premium Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Premium Finish warranty for 2 years.
  2. PowderGuard Zinc Base Coat applied to guides, bottom bar, headplates plus PowderGuard Premium applied to curtain and top coat for guides, bottom bar, headplates: Manufacturer's limited Zinc Finish warranty for 4 years.
  3. PowderGuard Textured: Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Textured Finish warranty for 3 years.
  4. PowderGuard Zinc Base Coat applied to guides, bottom bar, headplates plus PowderGuard Textured applied to curtain and top coat for guides, bottom bar, headplates: Manufacturer's limited Zinc Finish warranty for 4 years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: [www.overheaddoor.com](http://www.overheaddoor.com). E-mail: [info@overheaddoor.com](mailto:info@overheaddoor.com).

**\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

**\*\* NOTE TO SPECIFIER \*\* Models 630, 631 and 634 fire service comply with NFPA 80 for masonry and non-masonry installation. Customized doors are available for conveyor installations. Contact Overhead Door Corporation for additional information.**

## 2.2 ROLLING COUNTER FIRE DOORS

- A. Rolling Counter Fire Doors: Model 641 Counter Fire Doors.

1. Label: Provide rolling fire doors certified with the following listing.

**\*\* NOTE TO SPECIFIER \*\* Select one or more of the following paragraphs to suit the projects requirements for the door size(s) required and delete the ones not required. Note that UL Labels are standard and FM labels are optional.**

- a. UL or ULC 3-Hour Class A Label for installation on masonry or steel jamb walls (face mounted). Door may be welded to the face of steel jambs.
  - b. FM 3-Hour Class A Label for masonry or concrete walls, steel wall jambs or with steel tubes set against fire walls (masonry or non-masonry construction).
  - c. UL or ULC 1-1/2-Hour Class B Label for installation in non-masonry walls, face mounted or between jambs.
  - d. FM 1-1/2-Hour Class B Label when installed on 2-hour fire-rated gypsum dry walls.
2. Curtain: Interlocking slats, Type F-158 fabricated of 22 gauge stainless steel. Endlocks shall be attached to ends of alternate slats to maintain curtain alignment and prevent lateral slat movement.

**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph if glazing is required and delete if not required.**

3. Glazing: Fire-rated vision panels, four panels 3 inch by 5/8 inch (76 by 16 mm).
4. Finish: Slats and hood shall be stainless steel with No. 4 satin finish.
5. Bottom Bar:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the ones not required.**

- a. Single stainless steel angle bottom bar.
- b. Single stainless steel angle bottom bar with 1/4 inch (6 mm) foam astragal.
- c. Tubular locking bottom bar.

6. Guides:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the one not required.**

- a. Stainless steel shapes.
- b. Stainless steel shapes with brush smoke seals.

**\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the one not required.**

- c. Fastening Guides to Masonry Fire Walls: UL listed expansion anchors, or by through-bolts on soft brick or hollow block walls, or by bolts on steel jambs.
- d. Fastening Guides to Non-Masonry Fire Walls: Comply with the manufacturer's listing.
- 7. Brackets: Silver powder coated steel to support counterbalance, curtain and hood.
- 8. Counterbalance: Helical torsion spring type. Counterbalance shall be housed in a steel tube or pipe barrel.
- 9. Hood:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the one not required.**

- a. Stainless steel. Hood support provided for wall openings over 13 feet 6 inch (4.11 m) wide.
- b. FM approved hood shall be equipped with thermally controlled, internal flame baffle.

**\*\* NOTE TO SPECIFIER \*\* Select the following optional paragraph if required and delete if not required.**

- c. Provide with UL Listed exterior brush smoke seal.

**\*\* NOTE TO SPECIFIER \*\* Select one of the following Operation paragraphs for manual operation or electric motor operation and delete the one not required.**

- 10. Manual Operation:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following manual operation paragraphs and delete the ones not required.**

- a. Manual push.
- b. Crank operation.
- 11. Electric Motor Operation: Provide electric operator as listed in the door UL file, for size as recommended by manufacturer to move door in either direction.

**\*\* NOTE TO SPECIFIER \*\* Select following paragraphs if required and delete if not required.**

- a. Sensing Edge Protection:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- 1) Electric sensing edge.
- 2) Monitored electric sensing edge for momentary contact controls.
- b. Operator Controls:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following operation paragraphs and delete the one not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operation with NEMA 1 interior, NEMA 4 exterior, surface and flush mounted open, close, and stop controls.

**\*\* NOTE TO SPECIFIER \*\* Select one of the following location paragraphs and delete the one not required.**

- 3) Controls for interior location.
- 4) Controls for exterior location.
- 5) Controls for both interior and exterior location.

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- 6) Controls surface mounted.
- 7) Controls flush mounted.

**\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs for standard fire door manual operation or fire sentinel for electric motor operation and delete the one not required.**

- 12. Automatic Closure:

- a. Standard Fire Door: UL approved release mechanism equipped with a 165 degree fusible link.

**\*\* NOTE TO SPECIFIER \*\* Select the following optional accessory paragraph for Fire Sentinel model if required and delete if not required. Available for use with either motor or non-motor fire doors to allow interface with auxiliary fire protection devices to control the doors' closure.**

- b. Fire Sentinel time-delay release mechanism provides an added measure of safety to control the doors' closure.

13. Locking:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the ones not required.**

- a. Two interior bottom bar slides bolt for manually operated doors.
- b. Cylinder lock for manually operated doors.
- c. Interior slide bolt lock for electric operation with interlock switch.
- d. Cylinder lock for electric operation with interlock switch.

14. Wall Mounting Condition:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- a. Face-of-wall mounting.
- b. Between jambs mounting.

**\*\* NOTE TO SPECIFIER \*\* The following laminated countertop paragraphs are optional. delete if not required.**

- 15. Plastic Laminated Fire Rated Countertops: Provide counter fire doors with plastic laminated fire rated countertops.
  - a. Label: Plastic laminated fire rated countertops shall bear Warnock Hersey International 1-1/2 hour label for countertops up to 8 feet by 4 feet (2.44 m by 1.22 m). Sizes over 8 feet by 4 feet (2.44 m by 1.22 m) will bear an Warnock Hersey International Oversize Label.
  - b. Shape: Provide shape as indicated on the Drawings. To include: I or T copable for face mounted doors; Rectangular H (no cope), I or T copable for between mounted doors. No aprons or additional pieces shall be allowed.
  - c. Core: Interior core of fire rated composite and high density particleboard.
  - d. Finish: Top, bottom and all edges shall be covered with plastic laminate.
  - e. Color: Top and all edges as selected by the Architect from any color from Formica, Wilsonart or Nevamar brands of plastic laminate.
  - f. Mounting Hardware: Provide with all necessary mounting hardware.

## 2.3 ROLLING COUNTER FIRE DOORS WITH INTEGRAL FRAMES

A. Rolling Counter Fire Doors with Integral Frames: Model 660 Integral Frame Fire-Rated Counter Doors.

- 1. Label: Rolling fire doors shall bear the UL 1-1/2 Hour Class B label for masonry or non-masonry fire walls.
- 2. Curtain: Interlocking roll-formed 22 gauge #4 stainless steel, flat profile slats with endlocks for curtain alignment and single angle bottom bar.
- 3. Integral Frame and Guides: 16 gauge #4 stainless steel.
- 4. Sill: 14 gauge #4 stainless steel sill enclosed with fireproof acoustic filler.
- 5. Hood: Stainless steel with a #4 finish.
- 6. Finish:
  - a. Non-galvanized exposed ferrous surfaces shall receive one coat of rust-inhibitive primer.
- 7. Bottom Bar: Stainless steel with a #4 finish.

**\*\* NOTE TO SPECIFIER \*\* The following smoke seal paragraph is optional. Delete if not required.**

- a. Smoke seal.
8. Brackets: Minimum 12 gauge steel.
9. Counterbalance: Helical torsion spring type. Counterbalance housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inches per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
10. Operation:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Manual push up operation is standard.**

- a. Manual push up operation.
- b. Crank operation.
11. Locking:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- a. Interior slide bolts.
- b. Cylinder lock.
12. Mounting: Between jambs.

**B. Rolling Counter Fire Doors with Integral Frames: Model 662 Integral Frame Fire-Rated Counter Doors.**

1. Label: Rolling fire doors shall bear the UL 1-1/2 Hour Class B label for masonry or non-masonry fire walls.
2. Curtain: Interlocking roll-formed 22 gauge galvanized steel with baked-on polyester finish in gray, flat profile slats with endlocks for curtain alignment and double angle bottom bar.
3. Integral Frame and Guides: 16 gauge stainless steel with a #4 finish.
4. Hood: Stainless steel with a #4 finish.
5. Finish:
  - a. Non-galvanized exposed ferrous surfaces shall receive one coat of rust-inhibitive primer.
6. Sill: 14 gauge #4 stainless steel sill enclosed with fireproof acoustic filler.
7. Bottom Bar: Stainless steel with a #4 finish.

**\*\* NOTE TO SPECIFIER \*\* The following smoke seal paragraph is optional. Delete if not required.**

- a. Smoke seal.
8. Brackets: Minimum 12 gauge steel, primed.
9. Counterbalance: Helical torsion spring type. Counterbalance housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inches per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
10. Operation:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. Manual push up operation is standard.**

- a. Manual push up operation.
- b. Crank operation.
11. Locking:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- a. Interior slide bolts.
- b. Cylinder lock.
12. Mounting: Between jambs.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify opening sizes, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect 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.
- B. Install rolling counter fire doors in compliance with requirements of NFPA 80. Test fire-release system and reset components after testing.
- C. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- D. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- E. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for electric operation of counter doors and delete if not required.**

- F. Coordinate installation of electrical service with Section 16150. Complete wiring from disconnect to unit components.

**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for Fire Sentinel Devices used with doors. Delete if not applicable.**

- G. Install and test Fire Sentinel release device(s) in accordance with the manufacturer's instructions and in compliance with applicable regulations and codes of the local authority having jurisdiction.
- H. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.
- I. Install perimeter trim and closures.

### 3.4 ADJUSTING

- A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.



**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for Fire Sentinel Devices used with doors. Delete if not applicable.**

- B. Release device(s) shall be tested and witnessed for proper operation with the door manufacturer recommendations
- C. Adjust hardware and operating assemblies for smooth and noiseless operation.

### 3.5 FIELD QUALITY CONTROL

- A. Functional testing of fire door and window assemblies shall be performed by IDEA Certified personnel with knowledge and understanding of the operating components of the type of door being subject to testing.

### 3.6 CLEANING

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

### 3.7 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION