

**SECTION 08 3324**  
**COILING FIRE DOORS**



This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by one of the following methods:

Microsoft Word 2007: Click the OFFICE button, select WORD OPTIONS, select DISPLAY, then select or deselect the HIDDEN TEXT option.

Microsoft Word (earlier versions): From the pull-down menus select TOOLS, then OPTIONS. Under the tab labeled VIEW, select or deselect the HIDDEN TEXT option.

Corel WordPerfect: From the pull-down menus select VIEW, then select or deselect the HIDDEN TEXT option.

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### 1.1 SUMMARY

- A. Section Includes:
  - 1. [Manually] [Electrically] operated [galvanized steel] [stainless steel] overhead coiling fire doors.
  - 2. Operating hardware, controls, and supports.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section [09 9100 - Painting:] [\_\_ \_\_ \_\_ - \_\_\_\_\_:] Field painting of doors.

### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. A480/A480M-04 - Standard Specification for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.
  - 2. A653/A653M-03 - Standard Specification for Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 3. A666-00 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- B. National Fire Protection Association (NFPA) 80, 2007 Edition- Standard for Fire Doors and Fire Windows.
- C. Underwriters Laboratories (UL) 10B, 1997 Edition - Standard for Fire Tests of Door Assemblies.

### 1.3 SYSTEM DESCRIPTION

- A. Design doors to withstand cycle life of [20,000] [50,000] [100,000] [\_\_] cycles.
- B. System Operation:
  - 1. Model [FD Auto-Set] [FDC C] [FDCL], fail safe, motor operated continuous duty operating fire door system.
  - 2. Integral governor.
  - 3. Motor of sufficient power to operate door at average speed of 12 inches per second.
  - 4. Power supply: [115 Volt AC, single phase.] [220 Volt AC, [single] [three] phase.] [440-480 Volt AC, three phase.]
  - 5. Control station: 24 VDC [push button] [keyed switch] station marked [OPEN and CLOSE.] [OPEN, CLOSE, and STOP.] [Furnish [four] [\_\_] keys per station.]
  - 6. Spring tension release not required to initiate closure.
  - 7. Emergency and drop test closure by gravity, by means of fusible link separation, from release by fail-safe release device, or from power failure.

8. Spring tension reset not required.
9. Drop testing accomplished from floor level.
10. Drop test closing speed within 6 to 12 inches per second per NFPA 80.
11. On-board battery backup to eliminate nuisance drops during power outages.
12. Two smoke detectors to activate fail-safe release device.

\*\*\*\* OR \*\*\*\*

C. System Operation:

1. Model FDMK limited duty gearhead motor operated fire door capable of ten cycles per hour at average speed of 12 inches per second.
2. External viscous fluid governor.
3. Spring tension release not required to initiate closure.
4. Power supply: [115 VAC] [220 VAC], single phase.
5. Emergency and drop test closure: By gravity, by means of fusible link separation or from release by fail-safe release device.
6. Spring tension reset not required.
7. Drop testing accomplished from floor level.
8. Drop test closing speed within 6 to 12 inches per second per NFPA 80.
9. Three [165] [ ] degree F fusible links [with [fail-safe release device] [battery backup] [and] [connection to building fire alarm control panel and detection systems].]
10. Two smoke detectors to activate fail-safe release device.

\*\*\*\* OR \*\*\*\*

D. System Operation

1. Model FDCH chain hoist operated fire door, utilizing enclosed gear reduction operating system.
2. Integral centrifugal governor.
3. Spring tension release not required to initiate closure.
4. Spring tension reset not required.
5. Drop testing accomplished from floor level.
6. Closing speed will be within 6 to 12 inches per second per NFPA-80.
7. Three [165] [ ] degree F fusible links [with] [fail-safe release device][with battery backup] [with connection to building fire alarm control panel and detection systems.]]
8. Two smoke detectors to activate fail-safe release device.

#### 1.4 SUBMITTALS

A. Submittals for Review:

1. Shop Drawings: Indicate opening dimensions and required tolerances, jamb connection details, anchorage spacing, hardware locations, installation details, and special conditions.
2. Product Data: Provide information on components, application, hardware, and accessories.

B. Closeout Submittals:

1. Operation and Maintenance Data.
2. Test Records: Drop test results.

C. Sustainable Design Submittals:

1. Recycled products: Indicate percentage of recycled material used in manufacture of products, and percentage classified as post consumer.
2. Regional products: Indicate location of product manufacturer and distance from manufacturer to project site.

## 1.5 QUALITY ASSURANCE

- A. Fire Door Construction: Conform to UL 10B.
- B. Installed Fire Door Assembly: Conform to NFPA 80.

## 1.6 WARRANTIES

- A. Provide manufacturer's three year warranty against defects in materials and workmanship.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Contract Documents are based on Model [FD Auto-Set] [FDC C] [FDCL] by JanUS Doors Rolling Steel Division.
- B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

### 2.2 MATERIALS

- A. Galvanized Steel Sheet: ASTM A653/A653M, Structural Quality, G40 coating class.

\*\*\*\* OR \*\*\*\*

- B. Stainless Steel Sheet: ASTM A480/A480M or ASTM A666; Type 304 or 316, roll temper.
- C. Recycled Content: Minimum [75] [ ] percent, with minimum [40] [ ] percent classified as post consumer.]

### 2.3 COMPONENTS

- A. Curtain:
  - 1. Material: [Galvanized] [Stainless] steel.
  - 2. Profile: [Flat, non-insulated, 2.63 inches high x 0.66 inch deep.] [Curved, non-insulated, 2.62 inches high x 0.66 inch deep.] [Curved, non-insulated, 1.97 inches high x 0.53 inch deep.]
  - 3. Fire vision lites: Rectangular, 3 inches wide x 5/8 inch high, clear UL listed vision panels set with silicone sealant, retainers, and rivets.
  - 4. End locks: Galvanized malleable iron, attached to every other slat to act as wearing surface and prevent lateral movement.
  - 5. Windlocks: As required per design windload.
- B. Bottom bar: [Steel] [Stainless] steel angle.
- C. Hood: Minimum 24 gage [galvanized] [stainless] steel sheet, rectangular.
- D. Guides: Two [steel] [stainless steel] shapes bolted together to form guide channel and jamb mounting surface.
- E. Head Plate: Rectangular steel plate; precision ball bearings supporting barrel assembly.
- F. Barrel Assembly: Steel pipe sized for maximum deflection under loading of 0.03 inch per foot of span; threaded rings or lugs welded to barrel assembly for curtain attachment.
- G. Springs: Curtain weight counterbalanced by oil-tempered, helically wound torsion springs, permanently lubricated; mounted on steel torsion shaft.
- H. Safety Reversing Device: [Photoelectric sensor; detect obstruction and reverse door without requiring door to contact obstruction.] [Electric edge, two wire; detect obstruction and reverse door upon

contact with electric strips in vinyl housing.]

- I. Provide interlock switches at lock locations.
- J. Locking: [None.] [[Interior] [Exterior] [mounted plated steel slide bolt locks with padlock provisions.] [Master keyable cylinder operable from [coil] [fascia] [each] side of bottom bar.]

## 2.4 FINISHES

- A. Curtain: [Epoxy primer and polyester finish coat,] [Powder coat,] [\_\_\_\_] color [to be selected from manufacturer's standards.] [No. 4 satin.]
- B. Guides: [Powder coat, [\_\_\_\_] color [to be selected from manufacturer's standards] [No. 4 satin].
- C. Headplates: [Powder coat, [\_\_\_\_] color [to be selected from manufacturer's standards.]
- D. Hood: [Epoxy primer and polyester finish coat.] [Powder coat, [\_\_\_\_] color [to be selected from manufacturer's standards.] [No. 4 satin].]
- E. Bottom Bar: [Powder coat, [\_\_\_\_] color [to be selected from manufacturer's standards.] [No. 4 satin].

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install door assembly in accordance with manufacturer's instructions.
- B. Anchor to adjacent construction without distortion or stress.
- C. Fit and align coiling fire door assembly including hardware, level and plumb, to provide smooth operation and reliable drop testing.
- D. Make wiring connections between power supply and operator and between operator and controls.

### 3.2 ADJUSTING

- A. Adjust door to operate smoothly throughout full operating range and drop test procedure.

### 3.3 TESTING

- A. Perform drop test and reset procedure twice in presence of Owner or Owner's Representative per NFPA 80.
- B. Obtain witness signature on drop test form; leave one copy with Owner.

### 3.4 DEMONSTRATION

- A. Demonstrate proper operation to Owner.

END OF SECTION