

SECTION 08 33 13

COILING COUNTER DOORS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Coiling (roll-up) counter doors complete with [countertop,] guides, hoods, installation of lock cylinders, operating mechanism, and special features as noted.
- B. Related Section:
 - 1. Provision of structural supports.
 - 2. [Provision of electrical rough-ins including disconnect switches.]
 - 3. [Provision of smoke or ionization detectors.]
 - 4. [Section 08 31 00 - Access Doors and Frames.]
 - 5. [Section 08 71 00 - Door Hardware: Furnishing cylinders for locks.]
 - 6. [Section 09 91 00 - Painting: Field painting of prime painted doors.]
 - 7. [Furnishing cylinders for locks.]

1.02 REFERENCE STANDARDS

- A. ASTM International:
 - 1. ASTM A167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
 - 2. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 3. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
- B. [Intertek Testing Services (Warnock Hersey):]
 - 1. [WH - Certification Listings.]
- C. [National Electrical Manufacturers Association:]
 - 1. [NEMA LD3 - High-Pressure Decorative Laminates.]
- D. [National Fire Protection Association:]
 - 1. [NFPA 80 - Fire Doors and Windows.]
 - 2. [NFPA 105 - Standard for the Installation of Smoke Door Assemblies and other Opening Protectives.]
- E. [Underwriters Laboratories Inc.]:
 - 1. [UL - Building Materials Directory.]
 - 2. [UL 1784 - -Air Leakage Tests of Door Assemblies.]

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate details with work supporting or adjoining coiling counter doors.
 - 2. [Coordinate installation of electrical service.]
 - 3. [Coordinate installation of cylinders in key-operated push button stations.]
- B. [Preinstallation Meeting:]

C. [Sequencing:]

D. [Scheduling:]

1.04 [SUSTAINABLE CHARACTERISTICS]

A. Section 01 35 63 - Sustainability Project Requirements: Requirements for sustainable design compliance.

B. Materials and Resources Characteristics:

1. [Recycled Content Materials: Furnish materials with maximum available recycled content including:

SPEC NOTE *List materials specified in this section required to have recycled content.*

a. [_____.]

2. [Regional Materials: Furnish materials extracted, processed, and manufactured within 500 miles of Project site.]

SPEC NOTE *List materials specified in this section required to be regional materials.*

a. [_____.]

1.05 SUBMITTALS

A. Product Data.

B. Shop Drawings:

1. Reference each door using Door Number used in the Contract Documents.]
2. Indicate complete installation details, pertinent dimensioning, hardware locations, anchorage methods, and relation to building structure.

C. Samples: Only as requested.

D. Maintenance and Operating Manuals: Furnish complete manuals describing materials, devices, and procedures to be followed in operating and maintaining overhead coiling doors. Include manufacturer's brochures and parts lists describing actual materials used in the product.

1.06 [SUSTAINABLE DESIGN SUBMITTALS]

A. Section 01 35 63 - Sustainability Project Requirements: Requirements for sustainable design submittals.

B. Manufacturer's Certificate: Certify products meet or exceed specified sustainable design requirements.

1. Materials Resources Certificates:

- a. Certify source and origin for [salvaged] [and] [reused] products.
- b. Certify recycled material content for recycled content products.
- c. Certify source for regional materials and distance from Project site.

C. Product Cost Data: Submit cost of products to verify compliance with Project sustainable design requirements. Exclude cost of labor and equipment to install products.

1. Provide cost data for the following products:

- a. Salvage products.
- b. Reused products/
- c. Products with recycled material content.
- d. Regional products.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle items to prevent damage or deformation.
- B. Deliver items only after proper facilities are available.
- C. Store delivered products in clean, safe, dry area.

PART 2 PRODUCTS

2.01 COILING COUNTER DOORS

- A. [[_____,]Fire-Resistive Rated Counter Door, Surface Wall-Mounted:]
 - 1. Description:
 - a. Operation: Motor with key operated controls.
 - 1) Door to operate at speed of **1/2** feet per second.
 - 2) Motor to be of size to properly operate door.
 - 3) Motor operator to include geared limit switch and an electrically interlocked emergency chain operator.
 - 4) Motor to be operated by three button push-button with key lockout to provide convenience of push button with security of key station.
 - b. Fire-Rating: As indicated in Door Schedule.
 - c. Door shall bear UL or WH label.
 - d. Motor Operator System:
 - 1) Allow for testing of fire doors without ever mechanically resetting the release mechanism.
 - 2) If there is an obstruction in the opening, door shall automatically open, activate the voice module, and close again.
 - 3) During power failure, fire door will automatically close.
 - 4) Fire door shall never need to be mechanically reset and testing can be performed by any individual by activating alarm system.
 - e. [Smoke and Draft Control Assemblies: Door shall meet NFPA 105, and UL 1784 air leakage criteria. Door shall bear Underwriters Laboratories "Leakage Rated Assembly" label.]
 - f. Automatic Closing Device and Governor:
 - 1) Activation of time-delayed release device by smoke or ionization detector shall cause automatic closing of door to meet fire resistive rating of opening.
 - 2) Door shall have constant closing speed of not less than 6 inches per second and not more than 24 inches per second per NFPA 80.
 - 3) Door shall close due to activation by smoke detector signal, central alarm system signal, loss of power, and melting of fusible link and shall not require physical resetting for any reason.
 - g. Safety Edge:
 - 1) Install safety edge on bottom bar of door.
 - 2) Safety edge to automatically reverse travel of door if device detects an obstruction in the downward travel of door.
 - 3) Safety edge to consist of rubber boot attached below bottom bar with electrical switch secured to back of bottom bar.
 - 4) Safety edge to operate with air wave technology and shall not rely on pneumatic pressure or electrical strip contacts to operate properly
 - 5) Operation of safety edge shall not be subject to interference's by temperature, barometric pressure, water infiltration, or cuts in rubber boot.
 - h. Lock: Cylindrical lock in bottom bar, electrically interlocked to prevent motor from operating when door is locked.
 - i. Curtain: Minimum 22 gauge galvanized steel interlocking slats not more than 1-1/2 inches wide.
 - j. Hood: Minimum 24 gauge galvanized steel.

- k. Guides: Manufacturer's standard, steel.
 - l. [C countertop: Fire-rated high pressure decorative laminate covered countertop, 1-5/8 inches thick.]
 - 2. Product: The Cookson Co.'s "Rolling Counter Fire Door, Type FD10-1M, Slat #10, Soft-Close RPM Governing System, Phantom Featheredge, [Firestop Fire Rated Countertop] [and] [Smoke Gasketing]"; or equal.
- B. [[_____,]Fire-Resistive Rated Counter Door, Surface Wall-Mounted:]
- 1. Description:
 - a. Operation: Push-up with torsion-spring counter-balancing and automatic closing to meet fire-resistive rating of opening.
 - b. Fire-Rating: [_____] -hour.
 - c. Door shall bear UL or WH label.
 - d. [Smoke and Draft Control Assemblies: Door shall meet NFPA 105, and UL 1784 air leakage criteria. Door shall bear Underwriters Laboratories "Leakage Rated Assembly" label.]
 - e. Automatic Closing Device and Governor: Activation of time-delay release device by smoke or ionization detector shall cause automatic closing of door to meet fire resistive rating of opening. Door shall constant closing speed of not less than 6 inches per second and not more than 24 inches per second per NFPA 80. Door shall close due to activation by smoke detector signal, central alarm system signal, loss of power, and melting of fusible link and shall not require physical resetting for any reason.
 - f. Curtain: Minimum 22 gauge [galvanized steel] [stainless steel] interlocking slats not more than 1-1/2 inches wide.
 - g. Hood: Minimum 24 gauge [galvanized steel] [stainless steel].
 - h. Guides: Manufacturer's standard, [steel] [stainless steel].
 - i. Lock: Slide bolt concealed in bottom bar, operated by slide or thumb turn.
 - 2. Product: The Cookson Co.'s "Rolling Counter Fire Door, Type S10-1-Push-Up, Slat #10, Soft Close RPM Governing system"; or equal.
- C. [[_____,]Fire-Resistive Rated Counter Door, Between Jamb-Mounted:]
- 1. Description:
 - a. Operation: Push-up with torsion-spring counter-balancing and automatic closing to meet fire-resistive rating of opening.
 - b. Fire-Rating: [_____] -hour.
 - c. Door shall bear UL or WH label.
 - d. Automatic Closing Device and Governor: Activation of time-delay release device by smoke or ionization detector shall cause automatic closing of door to meet fire resistive rating of opening. Door shall constant closing speed of not less than 6 inches per second and not more than 9 inches per second.
 - e. [Time-Delay Release Device: [California State Fire Marshal Listed;] UL approved time-delay release. The Cookson Co.'s "Firefly Time-Delay Release Device, 24 V DC, 0.5 Amperes"; or equal.]
 - f. Curtain: Minimum 22 gauge [galvanized steel] [stainless steel] interlocking slats not more than 1-1/2 inches wide.
 - g. Hood: Minimum 24 gauge [galvanized steel] [stainless steel].
 - h. Guides: Manufacturer's standard, [steel] [stainless steel].
 - i. Lock: Slide bolt concealed in bottom bar, operated by slide or thumb turn.
 - 2. Product: The Cookson Co.'s "Rolling Counter Fire Door, Type FD10-2-Push-up"; or equal.
- D. [[_____,]Counter Door, Face of Wall-Mounted:]
- 1. Description:
 - a. Operation: Push-up with torsion-spring counterbalance.
 - b. Curtain: Minimum 22 gauge [galvanized steel] [stainless steel] interlocking slats not more than 1-1/2 inches wide.
 - c. Hood: Minimum 24 gauge [galvanized steel] [stainless steel].

- d. Guides: Manufacturer's standard, [steel][stainless steel].
 - e. Lock: Slide bolt concealed in bottom bar, operated by slide or thumb turn.
2. Product: The Cookson Co.'s "Counter Door, Type CD10-1-Push-up"; or equal.

2.02 MATERIALS

- A. [Sheet Steel: Cold-rolled, commercial, quality; ASTM A1008/A1008M.]
- B. [Galvanized Sheet Steel: Zinc-iron alloy finish (galvannealed) to meet requirements of ASTM A653/A653M, coating designation A90.]
- C. [Stainless Steel: ASTM A167, Type 302 or 304.]
- D. [High Pressure Decorative Laminate:]
 1. Description:
 - a. High pressure decorative laminate in wood grain or solid colors with textured surfaces.
 - b. Plastic Thickness and Grade: Meet requirements of NEMA LD3.
 - 1) Typical Horizontal Surfaces: HGS, 0.048 inch nominal thickness.
 - 2) Balancing Sheets: BKL, 0.020 inch nominal thickness.
 2. Manufacturers: Formica Corp.; Wilsonart International Inc.; Nevamar Decorative Surfaces; Abet Inc.'s; or equal.

2.03 FABRICATION

- A. Preparation:
 1. Verify guide details.
 2. Verify [fire-resistive rating,] dimensions, and design for each opening.
- B. Exposed hoods, guides, foot pieces, scribe strips, metal closures, and other exposed overhead coiling door components shall match material and finish of door curtain unless otherwise noted.
- C. Provide fastening devices, hardware, and similar items as required to mount door properly.

2.04 FINISHES

- A. Steel: Chemically etch and apply one baked-on prime coat.
- B. [Galvanized Steel: Hot-dip galvanize in accordance with ASTM A653/A653M, coating designation G90; chemically etch and apply one baked-on prime coat.]
- C. [Galvanized Steel (Curtain, Hood and Guides):
 1. Description: Hot-dip galvanize in accordance with ASTM A653/A653M, coating designation G90; bonderize for prime coat adhesion, apply powder coating finish.
 2. Product: The Cookson Co.'s "ColorCote"; or equal.]
 3. Color: As selected by University's Representative.
- D. [Stainless Steel: No. 4 finish, as standard with approved manufacturer.]
- E. [High Pressure Decorative Laminate Countertop: Color as selected University's Representative.]

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive overhead coiling doors and verify:
 - 1. Correctness of dimensions, backing, or support conditions.
 - 2. [Correctness and location of electrical service.]
 - 3. Absence of defects that would adversely affect installation.
- B. Do not start work until unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's printed instructions and reviewed Shop Drawings.
- B. [Install fire-rated doors in accordance with CBC Section 715 and requirements for fire listing.]
- C. [Coordinate installation of electrical service. Complete wiring from disconnect to unit components and from fire alarm system to door operator.]
- D. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- E. Securely and rigidly brace components suspended from structure.
- F. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

3.03 ADJUSTING

- A. Adjust doors, hardware, and operating assemblies for smooth and noiseless operation.
- B. [Test fire-rated doors for proper activation.]
- C. Upon completion, ensure doors are free from warp, twist, or distortion, and are lubricated and properly adjusted to operate freely.

3.04 CLEANING

- A. Thoroughly clean surfaces of grease, oil, and other impurities.
- B. Remove labels and visible markings.

3.05 DEFECTIVE WORK

- A. Replace, rework, or otherwise make good as required frames found defective as follows:
 - 1. Items broken, damaged, disfigured, or defaced.
 - 2. Incomplete, misaligned, or incorrectly located items.

END OF SECTION