UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated July 2023
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05/09, CHG 2: 11/12

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USACE / NAVFAC / AFCEC / NASA	**UFGS-08 33 13 (May 2009)**
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SECTION 08 33 13

COILING COUNTER DOORS
05/09, CHG 2: 11/12

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NOTE: This guide specification covers the requirements for metal rolling counter doors.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).
****

PART 1 GENERAL

1.1 REFERENCES

****
NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.
****

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A240/A240M	(2023) Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
ASTM A653/A653M	(2023) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM B209	(2014) Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
ASTM B209M	(2014) Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric)
ASTM B221	(2021) Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM B221M	(2021) Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80	(2022) Standard for Fire Doors and Other Opening Protectives

1.2 SUBMITTALS

****
NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a “G” to an item, if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets

following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.

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Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are [for Contractor Quality Control approval.][for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G[, [_____]]

SD-03 Product Data

Warranty
Rolling Counter Doors
Installation
Cleaning

SD-06 Test Reports

Drop-test

SD-10 Operation and Maintenance Data

SD-11 Closeout Submittals

Rolling Counter Door (Non-Rated)
Fire-Rated Rolling Counter Door

1.3 QUALITY ASSURANCE

Submit Detail Drawings showing elevations of each door type, details of anchorage, details of construction, location and description of hardware, shape and thickness of materials, details of joints and connections, and details of guides and fittings. Include a schedule showing the location of each counter door with the drawings.

1.4 DELIVERY, STORAGE, AND HANDLING

Deliver rolling counter doors to the jobsite wrapped in a protective covering with the brands and names clearly marked thereon. Store rolling counter doors in accordance with the manufacturer's instructions in a dry location that is adequately ventilated and free from dust, water, or other contaminants, and in a manner that permits easy access for inspecting and handling. Handle doors carefully to prevent damage. Replace damaged items that cannot be restored to like-new condition.

1.5 WARRANTY

Provide manufacturer's standard performance guarantees or warranties that extend beyond a 1 year period. Submit no later than 30 days prior to final inspection.

PART 2 PRODUCTS

****

NOTE: These paragraphs will be edited to retain only the materials and finishes for the type of rolling counter door required for the project. If finishes other than those specified are required, the specification will be revised accordingly. Generally G40 minimum galvanized coating with prime coat is sufficient for interior applications on most projects. Aluminum or stainless steel should be selected for esthetics. Aluminum should not be chosen for high use applications. Fire rated doors should be constructed only of steel or stainless steel.

Fire-rated doors are not normally available in sizes as large as non-rated doors. Coordinate with manufacturers on available heights and widths.

Add requirements for weatherstripping and weather-tight installation for rolling counter doors located on exterior walls.

****

2.1 SYSTEM DESCRIPTION

Furnish rolling counter doors of the type, size, and design indicated on the drawings. Provide the standard product of a manufacturer regularly engaged in the production of rolling counter doors. Provide each door with a permanent label showing the manufacturer's name and address and the model number of the door. Submit Manufacturer's descriptive data and catalog cuts.

2.2 BASIC COMPONENTS

2.2.1 Curtain

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NOTE: Standard non-rated rolling counter doors may be constructed of aluminum, steel or stainless steel. Fire rated counter doors must be constructed of steel or stainless steel. Edit the specification

for the type or types of rolling doors required for the project.
****

Fabricate the curtain of [extruded aluminum slats conforming to ASTM B221M ASTM B221, Alloy 6063] [0.759 mm 22 gauge stainless steel slats conforming to ASTM A240/A240M, Type 304 or Type 430] [or] [0.853 mm 22 gauge galvanized steel slats conforming to ASTM A653/A653M, Coating Designation [G60] [G90]]. Provide thickness of slat material as required by width of opening [or as required by specified fire-rating.] Use slats approximately 32 to 38 mm 1-1/4 to 1-1/2 inch wide with a depth of crown of 13 mm 1/2 inch. Fit alternate slats with endlocks to maintain curtain alignment. Provide bottom of curtain with angle or tubular bar reinforcement matching the curtain, and fitted with a resilient bottom seal.

2.2.2 Jamb Guides

Furnish guides of [3 mm 1/8 inch minimum thickness extruded aluminum conforming to ASTM B221M ASTM B221, Alloy 6063, and fitted with neoprene silencers or replaceable heavy nap striping to eliminate noise and dust infiltration.] [2.372 mm 13 gauge minimum thickness stainless steel conforming to ASTM A240/A240M, Type 304 or Type 430.] [2.278 mm 13 gauge minimum thickness galvanized steel angles conforming to ASTM A653/A653M, Coating Designation minimum G40.]

2.2.3 Counterbalance Shaft Assembly

Furnish the curtain coiled around a steel tube of sufficient thickness and diameter to prevent deflection exceeding 2.5 mm per meter 0.03 inch per foot. Provide a barrel containing oil tempered helical steel torsion springs capable of sufficient torque to counterbalance the weight of the curtain. Calculate the springs to provide a minimum of [7,500] [_____] operating cycles (one complete cycle of door operation will begin with the door in the closed position, move to the full open position and return to the closed position).

2.2.4 Brackets

Furnish brackets of a minimum 2.657 mm 12 gauge thickness steel if flat plate, or 1.519 mm 16 gauge thickness if there are a minimum of 3 returns of 19 mm 3/4 inch width.

2.2.5 Hood

Provide a hood of [1.02 mm 0.040 inch minimum thickness aluminum sheet conforming to ASTM B209M ASTM B209, Alloy 5005.] [0.607 mm 24 gauge stainless steel conforming to ASTM A240/A240M, Type 304 or Type 430.] [0.701 mm 24 gauge galvanized steel conforming to ASTM A653/A653M, Coating Designation minimum G40.]

2.2.6 Locks

Lock the curtain at [each side of the bottom bar by an integral slide bolt] [both sides of bottom bar by a chrome-plated cylinder lock keyed into the building keying system]. Locate lock on the [_____] room side of the counter door. [Provide keying [conforming to Section 08 71 00 DOOR HARDWARE] [as indicated].]

2.3 ROLLING COUNTER DOOR (NON-RATED)

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NOTE: Standard non-rated rolling counter doors may be constructed of aluminum, steel or stainless steel. Operation may be manual push-up, manual crank with removable handle, or motor operation. Edit the specification for the type or types of rolling doors required for the project.

****

Construct rolling counter doors, curtains, guides and hood components of [aluminum] [stainless steel] [galvanized steel] conforming to the requirements specified herein. Submit [Six] [_____] complete copies of Data Package 2 for Rolling Counter Doors (Non-Rated) and Fire-Rated Rolling Counter Doors (next paragraph) in accordance with Section 01 78 23 OPERATION AND MAINTENANCE DATA. Provide a list of the parts recommended by the manufacturer to be replaced after [1 year] [and] [3 years] of service.

2.4 FIRE-RATED ROLLING COUNTER DOOR

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NOTE: Fire-rated rolling counter doors are available with Class A (3 hr), Class B (1-1/2 hr), C (3/4 hr), or Class D (1-1/2 hr) label. If only one class of rolling counter door is required for the project, the label requirement may be specified. If the project requires more than one class of rolling counter door, the label requirements should be shown on the drawings. If fire-rated rolling counter doors are not required, all references to fire-rating and label requirements will be deleted.

****

Furnish fire-rated rolling counter doors, [[Class A (3 hr.)] [Class B (1-1/2 hr.)] [Class C (3/4 hr.)] [Class D (1-1/2 hr.)] rated] [as shown] and conforming to the requirements specified and to NFPA 80 for the class indicated. Provide labels of a recognized testing agency for the doors, indicating the applicable fire resistance rating. The construction details necessary for labeled rolling counter doors will take precedence over details indicated or specified herein. Furnish door curtains, guides and hood of [stainless steel] [galvanized steel]. Provide fire-rated rolling counter doors complete with hardware, accessories, and automatic closing device. Provide rolling counter doors, in exit corridor walls, with perimeter smoke and draft control gasketing.

2.5 INTEGRAL FRAME ROLLING COUNTER DOOR (RATED OR NON-RATED)

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NOTE: Requirements for counter and frame construction will be shown on the drawings. Integral frame units may be used where appropriate; however, the specification must be edited to incorporate the additional requirements for frame and counter. Fire rated integral frame units are available in galvanized steel, stainless steel, and with Class A (3 hr), Class B (1-1/2 hr), or Class C (3/4 hr), or Class D (1-1/2 hr) label. Integral

frame doors are not available as split frame.
****

Furnish integral frame rolling counter door of [[aluminum] [stainless steel] [galvanized steel].] [[[Class A (3 hr.)] [Class B (1-1/2 hr.)] [Class C (3/4 hr.)] [Class D (1-1/2 hr.)]] [as shown], [stainless steel] [galvanized steel].] Conform fire-rated doors to the requirements of NFPA 80 for the Class indicated and bearing the labels of a recognized testing agency indicating the applicable fire resistance rating. Form jambs to create guides for the curtain. Provide head and jambs of 1.519 mm 16 gauge thickness. Provide counter of 1.897 mm 14 gauge thickness. Provide rolling counter doors, in exit corridor walls, with perimeter smoke and draft control gasketing.

2.6 AUTOMATIC CLOSING DEVICE

****
NOTE: Activation of the automatic closing device on fire rated counter doors will be by the building's fire alarm system or smoke/heat detector system when counter doors are located in smoke barriers and fire barriers, or where life safety would be endangered by fire and smoke if the doors were left open. Fusible link devices will only be used in those areas where protection of property from fire is the only consideration.
****

Equip fire-rated counter doors with an automatic closing device which operates upon [the fusing of a 74 degrees C 165 degree F fusible link] [activation of the building's [fire alarm system] [smoke alarm system] [heat detector system]. Furnish fire and smoke doors that easily reset by the facility user after they have been released by the detection system. Resetting the door must not require the use of special tools.]

2.7 FINISH

Exposed parts of the counter door, including the curtain, bottom rail, guides, and hood must be of uniform finish and appearance. Furnish [aluminum with a clear anodized finish.] [stainless steel with a No. 4 finish.] [steel galvanized coating with a [prime coat] [and] [a baked-on or powder-coated Factory top coat finish].] Give all other steel parts a shop coat of primer paint standard with the manufacturer. Provide a factory coated color [in accordance with Section 09 06 00 SCHEDULES FOR FINISHES] [_____].

PART 3 EXECUTION

3.1 INSTALLATION

Install doors in accordance with approved detail drawings and manufacturer's instructions. Accurately locate anchors and inserts for guides, brackets, hardware, and other accessories. Upon completion, warped, twisted, or distorted doors are not acceptable. Lubricate, properly adjust, and demonstrate doors to operate freely. Conform fire-door installation with NFPA 80 for the class indicated and the manufacturer's instructions.

3.2 OPERATION

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NOTE: Rolling counter doors over 3050 mm 10 feet wide, or where the interior counter is over 380 mm 15 inches deep, may use manual crank operation or electric operation.

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3.2.1 Manual Operation

Provide curtain operated by means of [manual push-up with lift handles or continuous full width lift bar] [manual crank with removable handle].

3.2.2 Power Operation

Furnish a high-starting torque, reversible type motor of sufficient power and torque output to move the door in either direction from any position at the required speed. Provide power operator with an emergency push-up operation, limit switch, three-button type control marked "OPEN", "CLOSE", and "STOP". Provide control voltage of [24 vac] [120 vac]. Provide conduit and wiring necessary for proper operation in accordance with Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

3.3 TESTS

Drop-test the fire doors in accordance with NFPA 80 to show proper operation and full automatic closure and reset in accordance with the manufacturer's instructions. Provide a written record of initial test to the Contracting Officer.

3.4 FIELD FINISHING

Factory prime doors to receive field finishing as required, and then finish in accordance with Section 09 90 00 PAINTS AND COATINGS. Provide color [in accordance with Section 09 06 00 SCHEDULES FOR FINISHES] [_____].

3.5 CLEANING

Clean aluminum and stainless steel doors in accordance with manufacturer's approved instructions. Submit Manufacturer's preprinted installation and cleaning instructions.

-- End of Section --