SECTION 08 33 00

ROLLING COUNTER FIRE SHUTTERS WITH FRAME, /

SMOKESHIELD® ROLLING COUNTER FIRE SHUTTERS WITH FRAME,

**GENERAL NOTES TO SPECIFIER:**

This specification section has been prepared to assist design professionals in the preparation of project or office master specifications. It follows guidelines established by the construction specifications institute, and therefore may be used with most master specification systems with minor editing.

Edit carefully to suit project requirements. Modify as necessary and delete items that are not applicable. Verify that referenced section numbers and titles are correct. (numbers and titles referenced are based on MasterFormat®, 2004 edition).

This section assumes the project manual will contain complete division 1 documents including sections 01 33 00 submittal procedures, 01 62 00 product options, 01 25 13 product substitution procedures, 01 66 00 product storage and handling requirements, 01 77 00 closeout procedures, and 01 78 00 closeout submittals. If the project manual does not contain these sections, additional information should be included under the appropriate articles.

This is an open proprietary specification allowing users the option of approving other manufacturers which comply with the criteria specified herein.

**\*\* NOTES TO SPECIFIER \*\*** are highlighted in red text and should be deleted from final copy.

Optional items requiring selection by the specifier are enclosed within brackets, e.g.: [35] [40] [45]. In cases where one of the optional items is a standard feature of the door model, it is listed in the first position. Make appropriate selection and delete others.

Items requiring additional information are underlined, e.g.: \_\_\_\_\_\_\_\_\_\_\_\_

**PART 1** GENERAL

1.1 SUMMARY

A. **Section Includes:**

1. Automatic closing rolling [counter fire doors] [counter fire doors with SmokeShield® leakage rated assembly label] with integral frame [and countertop]

B. **Related Sections:**

1. 05 50 00 Metal Fabrications. Door opening jamb and head members.

2. 06 10 00 Rough Carpentry. Door opening jamb and head members.

3. 08 31 00 Access Doors and Panels. Access doors.

4. 08 70 00 Hardware. Padlocks. Masterkeyed cylinder.

5. 09 91 00 Painting. Field painting

6. Division 26. Electrical wiring and conduit for connection to alarm system.

C. **Products** **That May Be Supplied, But Are Not Installed Under This Section:**

1. Control station

2. Key test station

3. Annunciator

1.2 SYSTEM DESCRIPTION

A. **Performance Requirements:**

\*\* **NOTE TO SPECIFIER** \*\* If labeled smoke protection is not desired or required, then delete line item “2” below.

1. All rolling counter fire doors shall be constructed in accordance with testing agency requirements and shall bear a [1-1/2 hour] [3/4 hour] rating label

2. Provide doors with testing agency label for “Leakage Rated Assembly” or “S” label

a. Comply with NFPA 105 air leakage requirements

b. Pass UL test procedure 1784

\*\*NOTE TO SPECIFIER\*\* If your project does not involve a custom layout or custom product modifications, please delete 3 and 4. If you are unsure, please contact Architectural Design Support at 833-958-1273.

3. **Custom Layout**

a. Product has been reconfigured for a custom layout, refer to drawings by CornellCookson.

4. **Customized Product**

a. This product has custom modifications designed by CornellCookson. Contact Manufacturer for details.

1.3 SUBMITTALs

A. **Reference Section 01 33 00 Submittal Procedures; submit the following items:**

1. **Product Data**

2. **Shop Drawings:** Include special conditions not detailed in Product Data. Show interface with adjacent work

3. **Quality Assurance/Control Submittals:**

a. Provide proof of manufacturer ISO 9001:2015 registration

b. Provide proof of manufacturer and installer qualifications - see below

c. Provide manufacturer's installation instructions

4. **Closeout Submittals:**

a. Operation and Maintenance Manual

b. Certificate stating that installed materials comply with this specification

1.4 QUALITY ASSURANCE

A. **Qualifications:**

1. **Manufacturer Qualifications:** ISO 9001:2015 registered and a minimum five years experience in producing rolling counter fire doors with integral frames of the type specified

2. **Installer Qualifications:** Manufacturer's approval

1.5 DELIVERY STORAGE AND HANDLING

A. Reference Section 01 66 00 Product Storage and Handling Requirements

B. Follow manufacturer's instructions

1.6 WARRANTY

A. **Standard Warranty:** Two years from date of shipment against defects in material and workmanship

B. **Maintenance:** Submit for owner’s consideration and acceptance of a maintenance service agreement for installed products

**PART 2** PRODUCTS

2.1 MANUFACTURER

A. **Manufacturer:**

1. **Cookson:** 24 Elmwood Avenue, Mountain Top, PA 18707.

**Telephone:** (800) 233-8366.

a. **Model:** ERC20

2. **Cornell**

3. **Clopay Building Products**

4**. Amarr**

**Substitutions:** Not permitted

2.2 MATERIALS

A. **Curtain:**

1. **Slat Configuration:**

a. **Galvanized Steel with Finish as Described Below:** No. 10 (1-1/4” high by 3/8” deep) interconnected flat-faced slats constructed of 22 gauge, ASTM A 653, Commercial Quality, galvanized steel with tubular steel bottom bar measuring 2” high by 1-1/4” deep

a. **Stainless Steel:** No. 10 (1-1/4” high by 3/8” deep), interlocked flat-faced slats constructed of 22 gauge AISI type 304 #4 finish stainless steel with tubular stainless steel bottom bar measuring 2” high by 1-1/4” deep

1. **Finish:**

a. **GalvaNex™ Coating System (Stock Colors):**

1) **GalvaNex™** - ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation for chemical bonding baked-on base coat and [gray] [tan] [white] [brown] baked-on polyester enamel finish coat

2) **GalvaNex™Ultra**- Ultra Powder Coat to be applied as a protective top coat over GalvaNex finish. Top coat is a polyester based structured wear resistant clear powder coat of 2.5-3.5 mils cured film thickness. ASTM D-3363 pencil hardness: 2H or better. Tested per ASTM B117. Base coating of GalvaNex to be ASTM A 653 galvanized base coating treated with dual process rising agents in preparation for chemical bonding baked-on base coat and [gray] [tan] [white] [brown] baked-on polyester enamel finish coat.

a. **SpectraShield® Coating System (Color Selected by Architect):**

1) **SpectraShield** color as selected by Architect from manufacturer's color range, more than 180 colors

2) **SpectraShield Ultra** – Ultra Powder Coat to be applied as a protective top coat over SpectraShield finish. Top coat is a polyester based structured wear resistant clear powder coat of 2.5-3.5 mils cured film thickness. ASTM D-3363 pencil hardness: 2H or better. Tested per ASTM B117. Base coating of SpectraShield color as selected by Architect from manufacturer’s color range, more than 180 colors.

a. **Atmoshield®** **Powder Coating System (Color Selected by Architect):**

1) ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation for chemical bonding, gray baked-on base coat and gray baked-on polyester finish coat

2) Zirconium pre-treatment followed by baked-on polyester powder coat, with [Weathered iron] [Weathered brown] [Earth] [Weathered bronze] [Terra cotta] [Stucco] [Platinum] [Olde copper] [Rust] [Dark roast] [Weathered copper]; minimum 2.5 mils (0.065 mm) cured film thickness; ASTM D-3363 pencil hardness: H or better

a. **Stainless Steel:** type 304 #4 finish

B. **Endlocks:** Fabricate continuous interlocking slat sections with high strength galvanized steel endlocks riveted to slat ends per UL requirements

\*\* **NOTE TO SPECIFIER** \*\* Units are designed to fit minimum 4 ½” thick (masonry or drywall) and walls to maximum 12” thickness.

C. **Head and Jamb Frame:**

Integral welded with guide groove incorporated into jamb design. Build to fit \_\_\_\_\_” (\_\_\_\_\_ mm) wall thickness

1. **Stainless steel:** 16 gauge; type 304 #4 finish

D. **Countertop:**

1. **Stainless steel:** 14 gauge; type 304 #4 finish

\*\* **NOTE TO SPECIFIER** \*\* 12” (305 mm) minimum countertop depth; 36” (914 mm) maximum countertop depth for plastic laminate countertop.

1. **Plastic laminate covered:** 1 ½ Hour Labeled, 1-5/8” (41 mm) thick, size and configuration made for opening size and wall construction. Color as selected by Architect from standard range of Wilson Art or Formica plastic laminates.

E. **Counterbalance Shaft Assembly:**

1. **Barrel:** Steel pipe capable of supporting curtain load with maximum deflection of 0.03 inches per foot (2.5 mm per meter) of width

2. **Spring Balance:** Oil-tempered, heat-treated steel helical torsion spring assembly designed for proper balance of door. Provide wheel for applying and adjusting spring torque.

F. **Brackets:**

Fabricate from reinforced [steel] [AISI 300 series stainless steel] plate with bearings at rotating support points to support counterbalance shaft assembly and form end closures for hood.

1. **Finish:**

a. **Stainless Steel:** type 304 #4 finish

G. **Hood and Fascia:**

[16 gauge steel] [16 gauge stainless steel] with reinforced top and bottom edges

1. **Finish:**

a. **Stainless Steel:** type 304 #4 finish

\*\* **NOTE TO SPECIFIER** \*\* Include the following smoke seals when labeled smoke protection is required - model ERC20 units with smoke seal option (“S” label). Check code for smoke detector and alarm system tie-in requirements. Delete item below if not required.

H. **Smoke Seals & UL Smoke Label:**

1. **Bottom Bar:** [UL tested brush seal.] [Combination smoke seal/sensing edge.]

2. **Guides and Head:** Replaceable, UL Listed, brush seals sealing against fascia side of curtain

2.3 OPERATION

**\*\* NOTE TO SPECIFIER \*\* The FireGard manual push-up operation system** is a conventional tension release system that requires access to components on each the side of the opening and above the opening and door assembly for testing and resetting. Permanent hatch access must be allowed for future inspection, drop testing and re-setting.

1. **FireGard™ Series Manual Push-Up Operation:** Conventional spring tension release operating system

a. Provide bottom bar lift handles and a pull-down pole with hook

b. Activate automatic closure by [melting of a fusible link] [activation of a failsafe release device] by [notification from central alarm system] [notification from local detectors] or [power outage] [power outage exceeding 6 hours with a battery backup system]

c. Maintain automatic closure speed at an average of 6” – 24” per second

d. Reset of spring tension, mechanical dropouts or release devices to be completed only by an approved and trained door systems technician

e. Notify electrical contractor to supply and install the appropriate disconnect switch, all conduit and wiring per the door system wiring instructions

f. Drop test and reset door system twice by all means of activation and comply fully with NFPA 80, Section 5

2.4 ACCESSORIES

A. **Locking:**

1. **None**

1. **Padlockable slide bolt:** Padlockable slide bolt on coil side of bottom bar at each jamb extending into slots in guides. Provide interlock switches on motor operated units.

1. **Masterkeyable cylinder lock:** Operable from [coil] [fascia] [both] side[s] of bottom bar. Provide interlock switches on motor operated units.

a. **Standard Mortise Cylinder**

a. **BEST 7-Pin**

a. **U-Change**

a. **Schlage**

B. **Photoelectric Smoke/Heat Detector:** UL listed.

**PART 3** EXECUTION

3.1 EXAMINATION

A. Examine substrates upon which work will be installed and verify conditions are in accordance with approved shop drawings

B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates

C. Commencement of work by installer is acceptance of substrate

3.2 INSTALLATION

A. General: Install door unit and operating equipment with necessary hardware, anchors, inserts, hangers and supports

B. Comply with NFPA 80 and follow manufacturer's installation instructions

3.3 ADJUSTING

A. Following completion of installation, including related work by others, lubricate, test, and adjust doors for ease of operation, free from warp, twist, or distortion

3.4 FIELD QUALITY CONTROL

A. Site Test: Test doors for normal operation and automatic closing. Coordinate with authorities having jurisdiction to witness test and sign Drop Test Form

3.5 CLEANING

A. Clean surfaces soiled by work as recommended by manufacturer

B. Remove surplus materials and debris from the site

3.6 DEMONSTRATION

A. Demonstrate proper operation to Owner's Representative

B. Instruct Owner's Representative in maintenance procedures

**END OF SECTION**