SECTION 08 33 00

Rolling Counter Doors with Integral Frame /
Coiling Counter Shutters with Integral 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 01 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 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 and highlighted, e.g.: \_\_\_\_\_\_\_\_\_\_\_\_.

**PART 1** GENERAL

1.1 SUMMARY

A. **Section Includes:**

1. Manual rolling counter doors with integral frame and countertop, built-in type

1. Manual rolling counter doors with integral frame and countertop, slip-in type

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.

1.2 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 1.3 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

1.3 QUALITY ASSURANCE

A. **Qualifications:**

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

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

1.4 DELIVERY STORAGE AND HANDLING

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

B. Follow manufacturer's instructions

1.5 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

1.6 System Description

\*\*NOTE TO SPECIFIER\*\* If your project does not involve a custom layout or custom product modifications, please delete 1 and 2. If you are unsure, please contact Architectural Design Support at 833-958-1273.

1. Custom Layout

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

2. Customized Product

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

**PART 2** PRODUCTS

2.1 MANUFACTURER

A. **Manufacturer:**

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

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

a. **Model:** ESC20

2. **Cookson**

3. **Clopay Building Products**

**Substitutions:** Not permitted

2.2 FABRICATION

A. Factory weld head, and jambs and countertop into single unit, fully assembled, ready for installation

2.3 MATERIALS

A. **Curtain:**

1. **Slat Configuration:**

a. **Galvanized Steel with Finish as Described Below**: No. 1F, interlocked flat-faced slats, 1-1/2 inches (38 mm) high by 1/2 inch (13 mm) deep, 22 gauge ASTM A 653, Commercial Quality, galvanized steel with powder coated steel angle bottom bar with continuous lift handle and vinyl astragal

a. **Stainless Steel:** No. 1F, interlocked flat-faced slats, 1-1/2 inches (38 mm) high by 1/2 inch (13 mm) deep, 22 gauge AISI type 304 #4 finish stainless steel with stainless steel angle bottom bar with lift handles and vinyl astragal

a. **Perforated Slats (Steel):** No. 1P ScreenGard interlocked flat-faced, perforated slats, 1-1/2 inches (38 mm) high by 1/2 inch (13 mm) deep, 22 gauge ASTM A 653, Commercial Quality, galvanized steel perforated with 0.062 inch (1.6 mm) diameter openings at 0.094 inch (2.4 mm) staggered centers, approximately 22 percent free area with extruded aluminum tubular bottom bar, continuous lift handle and vinyl astragal

2. **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] 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** - 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, Zirconium treatment followed by baked-on polyester powder coat, with [color as selected by Architect from manufacturer's standard color range, over 180 colors] [custom color as selected by Architect]; minimum 2.5 mils (0.065 mm) cured film thickness; ASTM D-3363 pencil hardness: H or better

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

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 interlocking slat sections with high strength molded nylon endlocks riveted to ends of alternate slats

\*\* **NOTE TO SPECIFIER** \*\* Units are designed to fit minimum 4” (102 mm) thick (masonry or drywall) walls to maximum 13” (330 mm) thickness.

C. **Head and Jamb Frame:**

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

1. **Fabrication:**

a. **Stainless Steel:** 16 gauge AISI 300 series formed shapes

2. **Finish:**

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

\*\* **NOTE TO SPECIFIER** \*\* Delete below if integral stainless steel countertop is not to be provided with rolling counter door with integral frame.

D. **Countertop:**

1. **Stainless Steel:** Integral 14 gauge AISI 300 series stainless steel formed shape; type 304 #4 finish

**\*\* NOTE TO SPECIFIER** \*\* Plastic laminate countertop is available in lieu of integral stainless steel countertop. 12” (305 mm) minimum sill depth; 36” (914 mm) maximum sill depth. Include if desired.

1. **Plastic laminate covered:** 1-1/4” (32 mm) thick, of size and configuration 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 to ensure that maximum effort to operate will not exceed 25 lbs (110 N). 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

2.4 OPERATION

A. **Manual Push-Up:** Provide lift handles on bottom bar and pole with hook

A. **Manual Crank Hoist:** Provide crank hoist operator including crank gear box, steel crank drive shaft and geared reduction unit. Fabricate gear box to completely enclose operating mechanism and be oil-tight.

\*\* **NOTE TO SPECIFIER** \*\* A tube motor is ideal for tighter clearances, providing the convenience of a motor, all within limited headroom conditions. Recommended for applications not exceeding 5 cycles per hour.

1. **Motor - Electric Tube Motor Operator:** Rated for a maximum of 5 cycles per hour, UL325 listed, rated (50 ft-bl/sec) (100 ft-bl/sec) or (150 ft-bl/sec) as recommended by door manufacturer for size and type of door, 120 Volts, 1 Phase. Provide complete with electric tube motor, maintenance free electric brake, emergency manual crank hoist and control station(s). Motor shall be protected against overload with an auto-reset thermal sensing device. Operator shall be equipped with an emergency manual crank hoist assembly that safely cuts operator power when engaged. A disconnect chain shall not be required to engage or release the manual crank hoist. Electronic limit switch required. The electrical contractor shall mount the control station(s) and supply all conduit and wiring per the overhead door wiring instructions.
2. **Motor - Evergard Tube Motor Operator**: Complete electric tube motor operator with 120V Single Phase, Nema1 Wall Mounted Control Unit, 24V rechargeable battery back-up, 12 ft long, pre-wired, wiring harness, solenoid actuated brake and speed governor and 3 button push button station. Motor is rated for a maximum of 10 cycles per hour, 24 VDC TENV motor, overload protection, cULus recognized, with a rating as recommended by door manufacturer for size and type of door. Operator shall be capable of driving the door at a speed of 3 to 8 inches per second (8.69 to 20.22 cm/sec). Operator shall also be capable of 12-28 RPM. Fully adjustable mechanical internal worm limit switch mechanism shall synchronize the operator with the door. The electrical contractor shall mount the control stations and supply the appropriate disconnect switch all conduit and wiring per the overhead door wiring instructions. Provide a guide mounted interlock system to prevent damage to the door and operator when mechanical door locking devices are provided.
	1. Supply model **EverGard Motor Control Box** with programmable logic board and back-up power supply.  120v AC input power with auto switch to 24v DC back-up power.  Back-up power to provide power for 10 cycles (25 minutes)
		1. (2) 12v rechargeable lead sealed batteries.
		2. Programmable battery self-testing
		3. Monitoring points for open/close position, AC power loss and battery low voltage
		4. 12’ wiring whip to connect control box and motor standard (**Optional 25’, 50’, 75’ & 120’ available**)
		5. Emergency Push Button (EPB):  Flush mounted, single red push button station wired for emergency open function only.
		6. Door power indicator: Flush mounted voltage monitor for battery back-up system.  Flashing red light indicates low battery power and maintenance check-up.  Can be located up to 150 ft. away from motor control box.
		7. Non-resettable cycle counter
		8. UL325 compliant system.

2.5 ACCESSORIES

A. **Locking:**

\*\* **NOTE TO SPECIFIER** \*\* Locking is not available with tube motor operators.

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**

**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. 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 CLEANING

A. Clean surfaces soiled by work as recommended by manufacturer

B. Remove surplus materials and debris from the site

3.5 DEMONSTRATION

A. Demonstrate proper operation to Owner's Representative

B. Instruct Owner's Representative in maintenance procedures

**END OF SECTION**