



SECTION 08 33 00
SECURITY GRILLES
RAPIDGRILLE™ AP MODEL 676 UPWARD COILING GRILLE

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Advanced Performance Overhead Coiling Grille.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.**

- A. Section 05500 - Metal Fabrications: Support framing and framed opening.
- B. Section 06200 - Finish Carpentry: Wood jamb and head trim.
- C. Section 08332 - Overhead Coiling Counter Doors.
- D. Section 08710 - Door Hardware: Product Requirements for cylinder core and keys.
- E. Section 16130 - Raceway and Boxes: Conduit from electric circuit to grille operator and from grille operator to control station.
- F. Section 16150 - Wiring Connections: Power to disconnect.

1.3 REFERENCES

**** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. [ASTM A 653](#) - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. [ASTM A 666](#) - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- C. [ASTM A 924](#) - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- D. [ASTM B 221](#) - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- E. [NEMA 250](#) - Enclosures for Electrical Equipment (1000 Volts Maximum).
- F. [NEMA ICS 2](#) - Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2000 Volts AC or 750 Volts DC.
- G. [NEMA MG 1](#) - Motors and Generators.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Include detailed plans, elevations, details of framing members, required clearances, anchors, and accessories. Include relationship with adjacent materials.

**** NOTE TO SPECIFIER ** Delete selection samples if colors have already been selected.**

- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.

**** NOTE TO SPECIFIER ** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Install in areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship and installation is approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

1.7 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent finish materials to avoid damage to installed materials.

1.8 WARRANTY

- A. RapidGrille AP Model 676: Motor 5 year limited warranty; other components 2 year or 300,000 cycle limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overhaddoor.com. E-mail: info@overhaddoor.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ADVANCED PERFORMANCE OVERHEAD COILING GRILLE

- A. RapidGrille AP Model 676 by Overhead Door Corporation.
 - 1. Curtain: Horizontal 5/16 inch (7.8 mm) diameter rods with network of vertically interlocking links to form a pattern. Vertical rod 2 inch (51 mm) on center spacing. Bottom bar extruded aluminum tubular shape.
 - a. Material:

**** NOTE TO SPECIFIER ** Select the material required from the following paragraphs and delete the paragraph not required.**

- 1) Stainless Steel Link, Rod, and Spacer: No. 4 finish.
- 2) Stainless Steel Link, Rod, and Spacer: No. 2B finish.
- 3) Galvanized w/ Rust Inhibitor Steel Link, Rod, and Mill Aluminum Spacer.
- 4) Mill Aluminum Link, Rod, and Spacer
- 5) Clear Anodized Aluminum Link, Rod, and Spacer

- b. Pattern:

**** NOTE TO SPECIFIER ** Select the pattern required from the following paragraphs and delete the paragraphs not required.**

- 1) Straight lattice; horizontal spacing 9 inches (228 mm) on center.
- 2) Brick pattern; horizontal spacing 4-1/2 inches (114 mm) on center.

- 2. Performance:

- a. Opening speed of no less than 20 inches/second
- b. Closing speed of no higher than 12 inches/second
- c. Springless direct drive mechanism without chain and sprocket connecting the drive mechanism to the door.
- d. System cycle of no less than 300,000 cycles.

- 3. Finish:

**** NOTE TO SPECIFIER ** Select the finish required from the following two paragraphs and delete the paragraph not required.**

- a. Prime all non-galvanized, exposed ferrous surfaces with one coat of rust-inhibitive primer
- b. Powder coat: PowderGuard

- 1) PowderGuard Premium: Weather resistant polyester powder coat color as selected by the Architect.
4. Guides: Three Structural steel angles.

**** NOTE TO SPECIFIER ** Select the finish required from the following paragraphs and delete the paragraphs not required.**

- a. Finish: PowderGuard Premium: Weather resistant polyester powder coat with iron/black powder.
 - b. Finish: PowderGuard Zinc Rich with PowderGuard Premium: Weather resistant polyester powder coat with iron/black powder/color as selected by the Architect.
 - c. Finish: Stainless steel #4.
 - d. Finish: Stainless steel #2B.
5. Bottom Bar:
 - a. Tubular extruded aluminum
 - 1) Finish: Mill finish aluminum
 - b. Double structure steel angle

**** NOTE TO SPECIFIER ** Select the finish required from the following paragraphs and delete the paragraphs not required.**

- 1) Finish: PowderGuard Premium: Weather resistant polyester powder coat with iron/black powder.
 - 2) Finish: PowderGuard Zinc Rich with PowderGuard Premium: Weather resistant polyester powder coat with iron/black powder/color as selected by the Architect.
 - 3) Finish: Stainless steel #4.
 - 4) Finish: Stainless steel #2B.
6. Motor: Direct drive, hypoid gear motor/brake assembly sized for openings. Provide with a manual hand crank for operation during power outages. Operator and drive assembly is factory pre-assembled and provided with low voltage factory wiring with quick connect wiring harnesses where applicable.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the one not required.**

- a. Electrical Characteristics: 208/230V AC, three phase per motor/drive.
- b. Electrical Characteristics: 460V AC, 3 phase per motor/drive.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the one not required.**

- c. Left hand mount.
 - d. Right hand mount.
7. Control Panel: Provide electronic Variable Frequency drive controller with microprocessor self-diagnostics. Two line LCD readout indicates door action, alarm conditions, and fault conditions. Time delay self close timer and non-resettable cycle counter is included. Enclosure is NEMA 4X rated.
 8. Door Roll: Directly driven, springless roll shall be steel tube with integral shafts, keyed on the Drive End and supported by self-aligning grease-able sealed bearings. Door shall not require any counterbalance device.
 9. Hood: Protecting drive motor, barrel, chain, stop lock brake and sprocket from dirt and debris and extending between the support brackets. Fabricated of:

**** NOTE TO SPECIFIER ** Select one of the following hood material paragraphs; and delete the ones not required. Standard hood assembly is 24 gauge black painted steel.**

- a. 24 gauge black painted steel.
- b. 24 gauge powder coated steel.
- c. Stainless Steel with brush finish.
- d. Powder coated aluminum.

**** NOTE TO SPECIFIER ** Select the following paragraph for exterior mounted doors; and delete if not required.**

- e. Provide with sloped top for exterior mounting.

10. Brackets: Provide metal brackets to support motor, curtain, and hood and fabricated of:

**** NOTE TO SPECIFIER ** Select one of the following bracket material paragraphs; and delete the ones not required. Standard is black painted steel.**

- a. Black powder coated steel.
 - b. Powder coated aluminum.
 - c. Stainless Steel.
11. Safety Devices: Provide door with following safety devices:
 - a. Photoelectric sensors that cast an invisible beam across the door opening and reverses the downward motion of the door when an object enters the path of the beam.
 - b. Self-monitoring 2-wire, black/yellow striped electric fail-safe sensing edge reverses downward motion upon impact.
 - c. Automatic stop lock brake eliminates uncontrolled curtain travel independent of other safeties.
 12. Actuators:
 - a. One Open/Close/Stop push button station incorporated into Control Panel.

**** NOTE TO SPECIFIER ** Complete the following paragraph for optional equipment as required; and delete if not required. Specify optional push buttons, loop detectors, radio control, motion detectors, or any combination thereof as required. Considerable thought should be given to the choice of actuators based on the type of traffic and traffic flow through the opening. Contact the manufacturer for additional information.**

- b. Loop detectors.
- c. Radio control.
- d. Push buttons.
- e. Motion detectors.
- f. Pull cords.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify opening sizes, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.

- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

**** NOTE TO SPECIFIER ** Select the following paragraph for electric operation of grilles and delete if not required.**

- E. Coordinate installation of electrical service with Section 16150. Complete wiring from disconnect to unit components.
- F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.
- G. Install perimeter trim and closures.

3.4 ADJUSTING

- A. Test security grilles for proper operation and adjust as necessary to provide proper operation without binding or distortion.
- B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.5 CLEANING

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION