



Model Speed Grille™  
 Standard Alpine Brick Pattern  
 High Speed Commercial Rolling Grille Door

NOTE: For specifications, architects must choose from a variety of options. The standard choice will be shown first in plain text followed by the options shown in [brackets] (Example “Finish: Galvanized [Powder coated] [Baked enamel]”). The specifier must make the appropriate choices and delete the others (Example: “Finish: Powder coated”).

## GENERAL

### 1.01 SUMMARY

- A. This section includes: Electric operated High Speed Commercial Rolling Grille Door.
  - 1. High cycle operation
  - 2. High speed operation
- B. Related Sections: Related to this section, but not limited to, the following (based on Master Format 2004):
  - 1. Section 01660 – Product Storage and Handling Requirements.
  - 2. Section 04220 – Concrete Unit Masonry.
  - 3. Section 05120 – Structural Steel.
  - 4. Section 06100 – Rough Carpentry.
  - 5. Section 08310 – Access Doors and Panels.
  - 6. Section 08710 – Door Hardware.
  - 7. Section 09290 – Gypsum Board.
  - 8. Section 09900 – Paints and Coatings.
  - 9. Section 26000 – Electrical.

### 1.02 REFERENCES

- A. ASTM A 653/A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- B. ASTM A 36 – Standard Specification for Carbon Structural Steel, Hot Rolled Steel
- C. ASTM A 123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- D. ASTM A 641/A 641M – Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
- E. ASTM A 312 – Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes
- F. ASTM A 240 – Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
- G. ASTM A 276 – Standard Specification for Stainless Steel Bars and Shapes
- H. ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate



- I. ASTM B 221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
- 1.03 SUBMITTALS
  - A. Submit under provisions of Section 01300.
  - B. Product Data: Provide manufacturer's standard details and catalog data. Provide installation instructions.
  - C. Shop Drawings: Furnish shop drawings for architect's approval. Include elevation, sections, and details indicating dimensions, materials, finishes, conditions for anchorage and support of each door.
  - D. Submit manufacturer's recommended operation, troubleshooting, and maintenance instructions.
- 1.04 QUALITY ASSURANCE
  - A. Manufacturer: Rolling doors shall be manufactured by a firm with a minimum of five years experience.
  - B. Single-Source Responsibility: Manufacturer shall provide doors, tracks, motors, and accessories for each type of door. Secondary components shall come from a source acceptable to the manufacturer of the primary components.
- 1.05 DELIVERY, STORAGE, AND HANDLING
  - A. Deliver materials in original packaging supplied by manufacturer with intact labels. Store materials away from harmful environmental conditions and construction.
- 1.06 WARRANTY
  - A. Door Warranty: Provide two year written warranty from date of installation against deficiencies due to defects in materials or workmanship. Installer agrees to repair or replace any defects in materials or workmanship.
  - B. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

## PART 2 - PRODUCTS

- 2.01 MANUFACTURER
  - A. Manufacturer: Alpine Overhead Doors, Inc.; 8 Hulse Road Suite 1S, East Setauket, NY 11733. Telephone 800-257-4634 or 631-473-9300. Fax 631-642-0800.
  - B. Model: Speed Grille™ Commercial Rolling Grille Door
- 2.02 MATERIALS
  - A. Curtain:
    - 1. Grille: Furnish Brick pattern 6" [Straight Lattice Pattern 9"] [Straight Lattice Pattern 6"]
      - a) Horizontal rods: Solid 5/16" galvanized steel rods covered with aluminum [stainless steel] tubular spacers. Continuous end links are to be designed to prevent the curtain from leaving the side guide rails.
        - i) Vertical spacing: Aluminum [Stainless Steel] vertical links, 2" on center.
      - b) Rod Material:
        - i) ASTM A 641/A 641M Galvanized Carbon Steel Wire



- c) Tubular Spacing Material:
  - i) Aluminum  
Finish: Mill Finish [Clear anodized]  
– OR –
  - ii) ASTM 240 Stainless steel 300 series  
Finish: Mill finish #2B [#4 satin finish]
- d) Vertical Spacing Material:
  - i) Aluminum  
Finish: Mill Finish [Clear anodized] [Bronze anodized] [Black anodized]  
– OR –
  - ii) ASTM 240 Stainless steel 300 series  
Finish: Mill finish #2B [#4 satin finish]
- 2. Bottom Bar: Two structural formed galvanized steel [stainless steel] [aluminum] angles which extend into guides, designed to reinforce curtain bottom. (Size dependent on dimensions per manufacturer's standard).
  - a) Bottom Bar Material:
    - i) Galvanized steel, G90 coating exterior (G60 interior), Structural Quality Grade C, as per ASTM A 653/ A 653 M  
Finish: Galvanized [Powder coated] [Baked enamel]  
– OR –
    - ii) ASTM 240 Stainless Steel 300 Series  
Finish: Mill Finish #2B [#4 Satin Finish]
    - iii) Aluminum  
Finish: Mill Finish [Clear Anodized] [Bronze Anodized] [Black Anodized]
  - b) [Sloped Bottom Bar]: Constructed to match the pitch of opening floor to accommodate irregular floor conditions. Maximum pitch of 1/8" per foot

B. Guides:

- 1. Guides shall be designed using structural angles with a minimum thickness of 3/16", minimum 1 1/4" slotted connections, and removable bellmouth curtain stops to allow for curtain maintenance without removal of guides. Bellmouth stops shall be flush with guide groove. Guides shall be fastened with minimum 3/8" bolts at minimum 24" o.c.
  - a) Material:
    - i) ASTM A 36 Carbon Structural Steel  
Finish: Gray shop prime coat [ASTM A 123 Galvanized] [baked enamel paint] [powder coated].  
– OR –
    - ii) ASTM 276 Stainless Steel 300 Series



Finish: Mill finish #2B [#4 finish satin]

- b) Guide Wear Strips:
  - i) UHMW wear strips to be provided on guides. Plastic with an ultra-low coefficient of friction and inherent lubricity minimizes heat-generating friction in order to prevent wear and tear and extend the life of both guide and curtain material from the effects of high-speed, high-cycle use. UHMW wear strips also ensure a smooth and noiseless operation.

C. Door Support Brackets and Mounting Plates:

- 1. Steel plate not less than 1/4" thick. Drive end bracket plate is to be fitted with a sealed ball bearing. Bolt plates to wall mounting angles with minimum 1/2" fasteners. Plate supports counterbalance assembly and forms end closures.
  - a) Material:
    - i) ASTM A 36 Carbon Steel:  
Finish: Gray shop prime coat [ASTM A 123 Galvanized] [Baked enamel paint] [Powder coated].  
– OR –
    - ii) ASTM 240 Stainless Steel 300 Series  
Finish: Mill Finish #2B
  - b) [Stop Lock bearing]: To prevent door from free falling in the event drive operation fails.

D. Counterbalance Assembly: Torsion

- 1. Counterbalance assembly: Steel pipe barrel of a size capable of carrying a curtain load with a maximum deflection of 0.03" per foot of door width. Heat-treated helical torsion springs encased in a steel pipe and designed to include an overload factor of 25% to ensure minimum effort to operate. Sealed and prelubricated high speed ball bearing at rotating support points. Torsion spring charge wheel for applying spring torque and for future adjustments.
  - a) Material:
    - i) ASTM A 36 Carbon Structural Steel  
Finish: Black rust inhibitor paint  
– OR –
    - ii) A 312 Stainless Steel 300 Series  
Finish: Mill finish
  - b) Life Cycle:
    - i) High Cycle design up to 500,000 life cycles (Cycle defined as one time opening and closing of door).

E. Hood:

- 1. 24 gauge steel [.040" aluminum]. Formed to fit the contour of the end brackets with reinforced top and bottom edges. Provide support bracing for doors wider than 20 feet at every 10 feet to prevent excessive sag.
- 2. Shape: Hexagon [square] [round]



3. Material:
  - a) Galvanized Steel as per ASTM A 653/ A 653 M  
Finish: Galvanized [Baked enamel paint] [Powder coated]  
– OR –
  - b) ASTM 240 Stainless Steel 300 Series:  
Finish: Mill finish #2B [#4 satin finish]  
– OR –
  - c) Aluminum  
Finish: Mill Finish [Clear anodized] [Bronze anodized] [Black anodized]
4. [Fascia]: Galvanized [Stainless Steel] [Aluminum], provided where areas behind door hood are open. Materials and finish same as hood.

F. Locking:

1. Provide door with hasp and pins. Locking with padlock from the coil side. [Cylinder Locks] [Slide locks] (Electric Interlocks recommended with motorized doors only)
- 2.

G. Weatherstripping:

1. Bottom Bar: Vinyl astragal
2. Guides: Brush Seals [Snap-on vinyl].
3. Hood: Neoprene Baffle

H. OPERATION:

1. Motor Operators:
  - a) High Speed Direct Drive Operator
    - i) Direct drive motor operator and control system designed for high cycle usage. Sprocket and roller chain prohibited. Includes electrically interlocked auxiliary chain hoist for manual operation, overload protection, and a high-performance motor brake. Horsepower as recommended by manufacturer, with [115v single] [230v single] [208/230v three] [460v three] phase service. Operator utilizes a PLC controller with an adjustable variable frequency drive, allowing for a soft-start and soft-stop at both ends of limits. Logic provided for [1] [2] [3] fully monitored safety entrapment protection devices such that the failure of any single monitored device will cause a closing door to revert to an open position.
2. Safety Entrapment Protection
  - a) Photo Eyes: Consisting of both a transmitter and receiver, photo eyes project an infrared beam across the entire width of the door. Beam interruption during operation results in the cessation of downward travel and reverses the operator.
  - b) Light Curtain: 6' high light curtain provides a barrier that, upon breaking, reverses the door's direction of motion. Must be installed a minimum of 12" above photo eyes.
  - c) [Wireless Sensing Edge]: For motorized doors, sensing edges will allow the door to go up in case of obstruction directly underneath curtain.
  - i) Colors: Grey [Yellow] [Black] [White] [Yellow with Black Stripes]



3. Emergency Annunciator (Motor Operation Only)
  - a) [ADA compliant horn/strobe] [Voice warning module] automatic closing notification system for motor operated doors to provide a warning in advance of automatic door closure upon alarm or motor activation.

#### 2.03 Mounting:

1. Interior face mounted on prepared opening.
2. Exterior face mounted on prepared opening.

### PART 3 - EXECUTION

#### 3.01 EXAMINATION

- A. Verify that dimensions are correct and project conditions are in accordance with manufacturer's installation instructions; do not proceed with installation until unacceptable conditions have been corrected.

#### 3.02 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Ensure that units are installed plumb and true, free of warp or twist, and within tolerances specified by manufacturer for smooth operation.

#### 3.03 FIELD TESTING

- A. Test doors for regular operation.

#### 3.04 DEMONSTRATION

- A. Instruct the Owner's personnel in correct operation and maintenance of units.

#### 3.05 ADJUST AND CLEAN

- A. Clean units in accordance with manufacturer's instructions.
- B. Restore slight blemishes in finishes in accordance with manufacturer's instructions to match original finish. Remove and provide new units where repairs are not acceptable to the Architect.