



# Split-FRAME®

## FRAMED ROLLING COUNTER SHUTTERS



Model SPLIT FRAME®  
Curved or Flat Slats  
Rolling Counter Doors

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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: [Manual] or [Electric] operated Integral Frame Counter Shutter.
  - 1. Cycle life: Design doors of standard construction for normal use of 10,000 cycles standard [up to 400,000 cycles].
  - 2. Design doors to fit a wall thickness of minimum 4”.
- 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 312 – Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes
- E. ASTM A 240 – Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
- F. ASTM A 276 – Standard Specification for Stainless Steel Bars and Shapes
- G. ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
- H. ASTM B 221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

#### 1.03 SUBMITTALS



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- 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: SPLIT-FRAME® Rolling Counter-Shutter

### 2.02 MATERIALS

- A. Curtain:
  - 1. Slats: Constructed of interlocking, roll-formed 1 ¼" baby flat [2" baby curve] [1 ¼" perforated baby flat] [2" perforated baby curve] slats.
    - a) 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] (Minimum coating conforming with Coating Designation G-01 is required)  
– OR –
      - ii) ASTM 240 Stainless steel 300 series  
Finish: [Mill finish #2B] [#4 satin finish]  
– OR –
      - iii) Aluminum



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- Finish: Mill Finish [Clear anodized] [Bronze anodized] [Black anodized]
- b) Gauge: (Per manufacturer's standard)
    - i) Galvanized/Stainless: Minimum 22 gauge as manufacturer standard [20, 18, 16 gauge].
    - ii) Aluminum: Minimum 0.040" thick.
  2. Endlocks:
    - a) Stamped, hot-dipped, galvanized endlocks riveted (solid rivets, minimum 3/16" thick) to each end of alternate slats to prevent lateral movement and to limit slat deflection and bending stress.
  3. Bottom Bar: (Size dependent on dimensions per manufacturer's standard)
    - a) Two roll formed steel angles of minimum 1"x 1 1/2"x 1/8", designed to reinforce curtain bottom.
      - i) Galvanized Steel as per ASTM A 653/ A 653 M  
Finish: Gray shop prime [Powder Coated] [Baked Enamel]  
– OR –
      - ii) ASTM 240 Stainless Steel 300 Series  
Finish: [Mill finish #2B] [#4 satin finish]  
– OR –
    - b) Double Angle Extruded Aluminum Bottom Bar
      - i) Finish: Mill Finish [Clear anodized] [Bronze anodized] [Black anodized]  
– OR –
    - c) Tubular Bottom Bar
      - i) Galvanized Steel as per ASTM A 653/ A 653 M (only available up to 8')  
Finish: Gray shop prime [Powder Coated] [Baked Enamel]  
– OR –
      - ii) ASTM 240 Stainless Steel 300 Series (only available up to 8')  
Finish: [Mill finish #2B] [#4 satin finish]  
– OR –
      - iii) Extruded Aluminum  
Finish: Mill Finish [Clear anodized] [Bronze anodized] [Black anodized]
    - d) [Weather Stripping]: Neoprene astragal (On double angle bars).

### B. Integral Frame:

1. 16 gauge steel frame with guides incorporated into jamb design, reinforced by 12 gauge mounting structure (Bolt with 1/4" bolts at 12" o.c.). Built to fit \_\_\_\_\_" wall thickness. [Door sill plate of 14 gauge steel to match door frame]. Can be built solid for walls under construction or as split-frame to fit into finished spaces.
  - a) Material:



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- i) Galvanized Steel as per ASTM A 653/ A 653 M  
Finish: Gray shop prime [Powder Coated] [Baked Enamel]  
– OR –
  - ii) ASTM 240 Stainless Steel 300 Series  
Finish: [Mill finish #2B] [#4 satin finish]
- C. Door Support Brackets and Mounting Plates:
1. Minimum 12 gauge steel plate. Provide ball bearings at rotating support points. Bolt plates to mounting structures with minimum 1/4" 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: Gray shop prime coat [A 123 Hot-Dip Galvanized]  
– OR –
      - ii) A 312 Stainless Steel 300 Series  
Finish: Mill finish
    - b) Life Cycle: High Cycle springs designed to satisfy 10m through 400m life cycles. Consult engineering if height exceeds width for any cycle above 20m. (Cycle defined as one time opening and closing of door)
- E. Hood:
1. 16 gauge steel formed to fit the contour of the end brackets with reinforced top and bottom edges. Fasten to end brackets with #10 sheet metal screws.
  2. Shape: Square
  3. Material:



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- a) Galvanized Steel as per ASTM A 653/ A 653 M  
Finish: [Baked enamel paint] [Powder coated]  
– OR –
  - b) ASTM 240 Stainless Steel 300 Series:  
Finish: [Mill finish #2B] [#4 satin finish]
  4. [Fascia]: Galvanized [Stainless steel] provided where areas behind door hood are open. Materials and finish same as hood.
- F. Locking:
1. Provide padlockable slide locks for latching and locking door on coil side bottom bar at each jamb extending into slots in guides. (Electric Interlocks recommended with motorized doors only)
  2. [Cylinder Locks]: Only available on tubular bottom bars. Operated from coil [fascia][both] side(s). [Cabinet Style] [Masterkeyable]
- 2.03 OPERATION:
- A. Opening/Closing: Manual push-up [Manual hand crank] [Motor Operator].
  - B. [Manual hand crank]:
    1. 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.
  - C. [Motor Operators]:
    1. Choose ONE:
      - a) Redi-Shut® Gear Reduced Jackshaft Door Operator. (Standard)  
– OR –
      - b) Redi-Tube® Tubular Motor with Built-In Manual Handcrank Overdrive. Auxiliary chain hoist not available. For use on doors up to 10' x 8'.
    2. [Sensing Edges] (For double angle bottom bar): For motorized doors, sensing edges allow door to go up in case of obstruction. [Pneumatic Edge] [Electric Edge] [Wireless Edge].
      - a) Colors: Gray [Yellow] [Black] [White] [Yellow with black stripes]
- 2.04 Mounting:
1. Built-in for walls under construction
  2. Slip-in for finished walls.

### 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.



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- B. Ensure that units are installed plumb and true, free of warp or twist, and within tolerances specified by manufacturer for smooth operation.
  - C. Preparation for opening and installation of fire door to be in strict compliance with NPFA-80.
- 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.