



DESIGNFORM™ OPTIMA

ACCEPTABLE MANUFACTURER

Sectional doors shall be DesignForm OPTIMA as manufactured by Raynor of Dixon, Illinois.

OPERATION

Operation shall be manual, motor and/or hand chain as specified and detailed on door schedule. (Note: delete from list any operations that do not apply).

SECTIONS

- A. Material: Sections shall be steel sandwich construction, 2" (51 mm) thick, consisting of interior and exterior skins with an injected polyurethane foam insulated core. Exterior skin shall be woodgrain textured, interior skin shall be stucco textured. Overall section skins to be constructed of 24 gauge embossed (.030" overall steel thickness) hot-dipped galvanized (G60) steel per ASTM A-924 and A-653. Horizontal hinge reinforcement plates shall be 19-gauge steel located within section interior. End stiles shall be 18-gauge (.086") galvanized steel per ASTM A-925 and A-653. Sections shall feature a pinch-resistant, tongue-and-groove joint for weather-tight closure between sections. Exterior surface of sections shall feature the following design (select from list below):
1. Embossed Colonial Raised Panel: approximately square in design.
 2. Embossed Ranch Raised Panel: rectangular design.
 3. Flush Woodgrain Surface
- B. Mounting: Sections shall be mounted in the door opening using (select from list below):
1. Between-Jamb Bracket Mounting: as normally-provided, sections shall be mounted between the door jambs, and seal against exterior perimeter seal installed along the vertical and top horizontal edges of the door.
 2. Lap Jamb Angle Mounting: as optionally-provided, sections shall overlap the door jambs by 1" (25mm) on each side of the door opening.
- C. Insulation: Sections are furnished with 1.825" (48mm) HCFC & CFC-11 Free Polyurethane Foam. Insulation shall achieve an R-value of 18.0 and U-value of .056.
- D. Seals: Bottom of door to have flexible U-shaped vinyl seal in aluminum retainer, extending the full length of bottom of section.
- E. Trussing: Doors designed to withstand wind loads of 12 lbs. per sq/ft. (58.6 kg/sq.m.). Deflection of door in horizontal position to be maximum of 1/120th of door width.
- F. Color: Exterior skin shall have two coats of paint, one primer coat and one finish coat (select from list below):
1. White: Polyester paint
 2. Almond: Polyester paint
 3. Claytone: Polyester paint
 4. GrayTone: Polyester paint
 5. Hunter Green: Kynar® paint
 6. Brown: Kynar® paint
- G. Window Type: Sections may be furnished with either Colonial-type or Ranch-type windows, encased in an extruded PVC window frame. Quantity and location(s) of windows shall be per door elevation drawing(s) (select from list below or delete section):
1. Colonial Window
 2. Ranch Window
- H. Window Style: Windows may be furnished in one of several styles (select from list below or delete section):
- Colonial Type Windows
1. Glass only
 2. Snap-in Window inserts: Cascade, Cathedral, Sherwood, Stockton, Sunburst
 3. Silkscreen Windows: Sherwood, Cathedral
 4. Decorative Window Styles: Regency Acrylic Brass, Expressions Acrylic Brass, Diamond Frosted Leaded, Sunrise Frosted Beveled or Pinnacle Frosted Beveled for Colonial windows; or Antique Charcoal Leaded, Antique Brass Leaded, Diamonds 3 Frosted Leaded, Oval and Diamonds Frosted Leaded, Sunrise Frosted Beveled or Pinnacle Frosted Beveled for Ranch windows.
- Ranch Type Windows
1. Glass only
 2. Snap-in Window inserts: Cascade, Cathedral, Sherwood, Stockton, Sunburst
 3. Silkscreen Windows: Sherwood, Cathedral
 4. Decorative Window Styles: Regency Acrylic Brass, Expressions Acrylic Brass, Diamond Frosted Leaded, Sunrise Frosted Beveled or Pinnacle Frosted Beveled for Colonial windows; or Antique Charcoal Leaded, Antique Brass Leaded, Diamonds 3 Frosted Leaded, Oval and Diamonds Frosted Leaded, Sunrise Frosted Beveled or Pinnacle Frosted Beveled for Ranch windows.
- I. Glazing: Single glaze windows to be provided with 1/8" (3.2mm) thick DSB glass (select from list below or delete section):
1. Clear Glass: as normally-provided.
 2. Obscure Glass: as optionally-provided, (not available for silkscreen window styles).



DESIGNFORM™ OPTIMA

TRACK

- A. Material: Track shall be hot-dipped galvanized steel per ASTM A-653, and fully adjustable for adequate sealing of door to jamb, or weather seal.
- B. Type: Track may be configured as Normal Headroom, Low Headroom, Vertical Lift, Lift-Clearance, Incline and/or Contour, as noted and detailed on door schedule. (Note: delete from list any configurations that do not apply).
- C. Size: Track size shall be (select from list below):
 - 1. 2" (51mm): as normally-provided.
 - 2. 3" (76mm): as optionally-provided, for promoting higher cycle life and durability.
- D. Mounting: Tracks shall be either bracket-mounted or angle-mounted (select from list below):
 - 1. Bracket-Mount: Using 2" adjustable track bracket as typically provided for use with wood jambs.
 - 2. "Floor-to-Header" Angle-Mount: Consisting of continuous angle extending from the floor up to the door header, for use with steel, wood or masonry jambs. Continuous angle size shall not be less than 2 5/16" x 5" x 3/32" (59 x 127 x 2.5mm).
 - 3. "Floor-to-Shaft" Angle-Mount: Consisting of continuous angle extending from the floor, past the header, and completely up to the door shaft for use with steel, wood or masonry jambs. Continuous angle size shall not be less than 2 5/16" x 5" x 3/32" (59 x 127 x 2.5mm) on 2" track.
- E. Finish: Track finish shall be (select from list below):
 - 1. Galvanized: as normally-provided.
 - 2. White powdercoated.

COUNTERBALANCE SYSTEM

- A. Type: The spring counterbalance shall be provided with aircraft-type, galvanized steel lifting cables with minimum safety factor of 5 to 1. Counterbalance system shall be Torsion Springs: as normally-provided, consisting of heavy-duty oil-tempered wire torsion springs on a continuous ball-bearing cross-header shaft.
- B. Cycles: Torsion spring counterbalance shall achieve (select from list below):
 - 1. 8,000 cycles
 - 2. 25,000 cycles
 - 3. 50,000 cycles
 - 4. 100,000 cycles

HARDWARE/ACCESSORIES

- A. Hinges and Brackets: Both hinges and Brackets to be fabricated from galvanized steel. Hinges to have a white powdercoat finish.
 - 1. Bracket Finish: Bracket finish shall be (select from list below):
 - a. Galvanized: as normally-provided.
 - b. White powdercoated.
- B. Rollers: Track rollers shall have a 2" (50.8mm) or 3" (76.2mm) diameter, consistent with track size. Rollers shall have hardened steel ball bearings.
- C. Accessory Perimeter Seal: Doors may be furnished with perimeter seal for jambs and header (delete section if not applicable).
- D. Accessory Lock: Door systems may be furnished with an exterior or interior locking device (select from list below or delete section):
 - 1. Exterior Lock: shall have five-pin tumbler cylinder with night latch and steel bar engaging track.
 - 2. Interior Lock: shall have interior dead bolt provided with hole to receive padlock (padlock by others).