



THERMASEAL™
STANDARD

ACCEPTABLE MANUFACTURER

Sectional doors shall be ThermaSeal STANDARD 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, 1 3/4" (44.4mm) thick, consisting of interior and exterior skins with an injected polyurethane foam insulated core. Exterior section skins to be constructed of 25 gauge (.018 minimum) steel thickness and interior skins to be 26 gauge (.013 minimum steel thickness), stucco embossed hot-dipped galvanized (G60) steel in compliance with ASTM A-653. Horizontal hinge reinforcement strips shall be 20 gauge steel located within section interior. End stiles shall be 16 gauge (.055) galvanized steel.
- B. Mounting: Sections shall be mounted in the door opening using (select from list below):
1. Lap Jamb Angle Mounting: as normally-provided, sections shall overlap the door jambs by 1" (25mm) on each side of the door opening.
 2. Between Jamb Bracket Mounting: as optionally-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.
- C. Insulation: Sections will have a calculated R-value of 16.4 and U-value of .061.
- D. Header Seal: Attachment seal on top section to prevent airflow above the header.
1. None: as normally-provided
 2. Optional: Flexible dual-durometer vinyl header seal.
- E. Section Joint Seals: Interior and exterior skins to be separated by continuous hot melt bead to form an effective thermal break and a complete weatherseal along the section joint.
- F. Bottom Seal: Bottom of door to have flexible U-shaped vinyl seal in an extruded aluminum retainer.
- G. Trussing: Doors shall be designed to withstand windloads of 20 lbs. per sq. ft. (97.6 kg/sq.m.). Deflection of door in horizontal position to be maximum of 1/120th of door width.
- H. Color: Exterior skin shall have two coats of paint, one primer coat and one finish coat (select color from below):
1. White: as normally-provided, (Polyester paint)
 2. Dark Brown: as optionally-provided, (Kynar[®] paint).
- I. Windows: Sections may be furnished with either Oval-type or Full-view windows. Quantity and location(s) of windows shall be per door elevation drawing(s) (select from list below or delete section):
1. 24" x 8" (610 x 203mm) Oval Window: encased in a one-piece vulcanized EPDM rubber frame.
 2. 34" x 16" Square Window: encased in a two-piece black interior and exterior frame.
 3. Color-matched Full-view Window: consisting of aluminum stile and rail construction and color matched to the exterior color of the door with durable powdercoat paint.
- J. Glazing: Windows to be provided with insulated glass (select from list below or delete section):
1. 1/8" (3.2mm) DSB Glass: consisting of two (2) panes of 1/8" (3.2 mm) DSB glass.
 2. 3/16" (4.8mm) Glass: consisting of two (2) panes of 3/16" (4.8MM) glass.
 3. 1/4" (6.4mm) Wire Glass: consisting of one pane of 1/4" (6.4mm) wire Glass (exterior pane) and one pane of 1/8" (3.2mm) DSB glass (interior pane).

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 weatherseal.
- 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) or 3" (76mm): as normally-provided and determined by door size.
 2. 3" (76mm): as optionally-provided, regardless of door size, 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, as typically provided for use with steel, wood, or masonry jambs. Continuous angle size shall not be less than 2 5/16" x 4" x 3/32" (59 x 102 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 4" x 3/32" (59 x 102 x 2.5mm) on 2" track.



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- E. Finish: Track finish shall be (select from list below):
1. Galvanized: as normally-provided.
 2. White Powdercoat: as optionally-provided.

COUNTERBALANCE SYSTEM

- A. Type: The door counterbalance system shall be provided with aircraft-type, galvanized steel lifting cables with minimum safety factor of 5 to 1. Counterbalance system shall be (select from list below):
1. Torsion Springs: as normally-provided, consisting of heavy-duty oil-tempered wire torsion springs on a continuous ball-bearing cross-header shaft.
 2. Weight Counterbalance: as optionally-provided for lift clearance and vertical lift only.
- B. Cycles: Torsion spring counterbalance shall achieve (select from list below):
1. 10,000 cycles
 2. 25,000 cycles
 3. 50,000 cycles
 4. 100,000 cycles

HARDWARE/ACCESSORIES

- A. Hinges and fixtures: All hinges and fixtures shall be made from galvanized steel.
- B. Rollers: Rollers shall be 2" (50.8mm) or 3" (76.2mm) in diameter, consistent with track size. Rollers shall have hardened steel ball bearings.
- C. Perimeter Seal: Door shall be furnished with complete weatherstripping system to reduce air infiltration. Weather-stripping shall be replaceable.
1. Bracket Mounted Doors: as optionally-provided with climate seal or vinyl seal with aluminum retainer (1399).
 2. Angle Mounted Doors: as optionally-provided with angle clip-on seal. Air leakage per foot of door perimeter (floor, jamb, and header) shall not exceed .81 CFM (22.9 L/Min) @ 25MPH (40.2km/hr). No air leakage shall be detected between section joints when tested in accordance with ASTM E-283.
- 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).