



STANDARD SPECIFICATIONS
THERMOSTOP SENTINEL
Section 08 34 19: Industrial Doors

PART 1 – GENERAL

1.1 Works by others :

- Metal fabrication, section 05500
- Electrical power supply, division 16
- Structural work, division 5

1.2 Construction requirements :

- Design doors to withstand wind load of 1 kPa (velocity of 145 km/hour) with a maximum horizontal deflection of 1/120 of opening width
- ASTM E-283 (air leakage) : 0.645 L/s-m² at 75 Pa (0.127 cfm/ft² at 25 miles/hour)
- ASTM E-547 (water penetration) : absolutely no leak

1.3 Shop drawing: Supply shop drawings in accordance with plans and specifications for approval. Contractor shall be responsible for job site dimensions before fabrication and co-ordination with others sub-trades.

1.4 Maintenance instructions: Supply maintenance instructions for hardware and/or others components in accordance section 01300.

1.5 Warranty: Thermostop doors and hardware carry a warranty of one (1) year against any defect or faulty workmanship. The door panels carry a ten (10) year limited warranty against perforation due to rusting, and a five (5) year limited warranty on delamination, under normal operational conditions.

PART 2 - PRODUCT

2.1 Material :

- Pre-painted galvanised G-60 metal sheet conform to ASTM A653
- Commercial aluminium extrusions 6063 T5
- Insulation: foamed in place polyurethane, 2.56 lbs/ft³ (41.0 kg/m³) minimum density, conform to CGSB 51-GP-21M.

2.2 Reference product : Thermostop Sentinel, model Mark II-200, Mark III-200, Mark IV-200, Mark II-166, Mark III-166 or Mark IV-166, as manufactured by THERMOSTOP INC., 3775 Losch boulevard, Longueuil, (Québec), Canada, Tel.: 450-678-8666, Fax: 450-678-7765, www.thermostop.com

2.3 Dimensions and clearances :

| | | |
|-----------------|-------------------|------------------------------|
| <u>Quantity</u> | <u>Dimensions</u> | <u>Clearances</u> |
| | (height x length) | (floor to first obstruction) |

2.4 Panel manufacturing process: The inner core consists of rigid polyurethane, foamed in place under high pressure between two metal skins. The panel is equipped, on its full length, with 20ga. steel (0.86mm) continuous reinforcement plates, for the solid attachment of hinges. To avoid mouldiness, no wood material is used in the construction of the panel.



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2.5 Insulation: CFC-free rigid foamed-in-place polyurethane. 2.56 lbs/ft³ (41.0 kg/m³) minimum density.

2.6 Joint and seal: High quality galvanized steel skins roll formed into an exclusive tongue-and-groove joint with a true thermal break and a double bubble-shaped weather seal (single seal for the Mark II models).

2.7 Thermal break: To eliminate all possibilities of thermal conductivity, a true thermal break of

- ¾" (18mm) for the 2" thick door
- 1 ¾" (43 mm) for the 3" thick door
- 2 ¾" (68 mm) for the 4" thick door

separates the exterior skin from the interior one.

2.8 Metal skins, thickness and insulation value:

Options available:

- 20ga. steel:
Thermostop™ Sentinel, model
Mark II-200 (2", R-18),
Mark III-200 (3", R-24)
Mark IV-200 (4", R-32)
- 16ga. steel: Thermostop™ Sentinel, model
Mark II-166 (2", R-18),
Mark III-166 (3", R-24)
Mark IV-166 (4", R-32)

2.9 Finish:

- 20ga. Steel: White, optional shop painted color. Smooth finish, with ribs.
- 16ga. Steel: Skins to be shop painted. Color to be selected from the RAL color chart. Smooth finish.

2.10 Window or full view panel:

- Type A (**for the Mark II models only**): full view extruded aluminum panel, with clear 1/8" (3mm) - 1/8" (3mm) thermal sealed glass.
- Type B: square corner black frame. Double acrylic or clear 1/8" (3mm) - 1/8" (3mm) thermal sealed glass. Standard 24" (610mm) x 12" (305mm).
- Type C: round corner black frame. Double acrylic glass. Standard 24" (610mm) x 12" (305mm).
- Type E: square corner white frame. Clear 1/8" (3mm) - 1/8" (3mm) thermal sealed glass. Standard 24" (610mm) x 12" (305mm).

Optional: tempered glass, tinted glass, lexan.

2.11 Perimeter weather seal: triple-lip, flexible PVC weather seal, retained in an extra robust extruded aluminum retainer.

2.12 Bottom weather seal: U-shaped, flexible PVC double weather seal, retained in a heavy duty extruded aluminum retainer, securely fastened to the bottom of the door (one bottom seal for the Mark II models).

2.13 End caps: Sections are equipped with 16ga. (1.42mm) thick galvanized steel end caps.



PART 3 – HARDWARE

Recommended models for 10 000 cycles springs:

- Up to 12'0" (W.) x 12'0" (H.): Hardware model 80-T
(see brochure **Hardware – Thermostop Industrial Doors**)
- Up to 16'0" (W.) x 16'0" (H.): Hardware model 80-THD
(see brochure **Hardware – Thermostop Industrial Doors**)

For more than 10 000 cycles springs and door size of more than 16'0" (W.) x 16'0" (H.), please consult with Thermostop Inc.

PART 4 – ELECTRICAL OPERATOR AND ACCESSORIES

- 4.1** The door will be equipped to be operated either by :
- manually with a handle and a sash cord
 - or manually with a handle and a pull chain
 - or with a chain hoist, recommended for doors over 12' (W.) x 12' (H.)
 - or with an electric operator

- 4.2 Electric operator:** Centrally mounted "Trolley" motor (for standard lift or low headroom tracks only) and side mounted "Jackshaft" motor.

Recommended models for 10 000 cycles springs:

- Up to 12'0" (W.) x 12'0" (H.): electric motor XTRA-H
(See Operators – Thermostop Industrial Doors)
- Up to 16'0" (W.) x 16'0" (H.): electric motors XTRA-HHD
(See brochure **Operators – Thermostop Industrial Doors**)

For electric accessories and their corresponding options such as push button control stations, radio controls, magnetic loop detector, motion detector, safety edge, utility switch, time delay, closing timer etc., please consult brochure **Operators – Thermostop Industrial Doors**.

For more than 10 000 cycles springs and door size of more than 16'0" (W.) x 16'0" (H.), consult with Thermostop Inc.

PART 5 – INSTALLATION

- 5.1** Install doors and hardware in accordance with manufacturer's standards.
- 5.2** Touch-up doors with primer where galvanized finish is damaged during fabrication.
- 5.3** Install electrical motors, controller units, push button stations, relays and other electrical equipment required for door operation.
- 5.4** Lubricate springs and adjust door operating components to ensure smooth opening and closing of doors.
- 5.5** Adjust weather stripping to form weather tight seal against the elements.