

**STANDARD SPECIFICATIONS  
BREAKFREE PROTECTION  
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 21 psf (velocity of 90.5 miles/hour) with a maximum horizontal deflection of 1/120 of opening width

**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 with 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/ft<sup>3</sup> (41.0 kg/m<sup>3</sup>) minimum density, conform to CGSB 51-GP-21M

**2.2 Reference product :** Thermostop Tradition Mark II-266 (2" thick) steel door, Thermostop Energex Mark III-266 (3" thick) or Thermostop Energex Mark IV-266 (4" thick) steel doors, equipped with the Breakfree 24" or 48" bottom panel, 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> (height x length)	<u>Clearances</u> (floor to first obstruction)
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**2.4 Panel manufacturing process:** The inner core consists of rigid polyurethane, foamed in place under high pressure between two metal skins. The top and intermediate panels are 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.

**2.5 Breakfree bottom panel:** Bottom panel, 24" or 48" high, capable of breaking away inward and outward a full 110 degrees. It is protected from impact, on the interior side and on the exterior side (optional), with a high-density impact-resistant plastic facing.

**2.6 Breakfree bottom section features:**

Ball Latch Reset System: holds the Breakfree panel in place and allows for easy resetting after impact

Replaceable brush seal on all 3 sides of the Breakfree panel

High density impactable plastic facing for interior side and exterior side (optional)

**2.7 Insulation and thickness :** All door panels have a rigid CFC-free polyurethane insulation core, foamed-in-place under high pressure:

. 2" thick, R-18, Tradition Mark II-266 model

. 3" thick, R-24, Energex Mark III-266 model

. 4" thick, R-32, Energex Mark IV-266 model

**2.8 Metal skins and color:** 26ga galvanized steel. White color.

Options: - steel skins: 20ga and 16ga

- aluminum skins : 24ga and 16ga

**2.9 Window :**

○ 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.

**2.10 Joint and seal:** High quality galvanized steel or aluminum skins roll formed into an exclusive tongue-and-groove joint with a true thermal break and a bubble shaped weather seal (double seals for Energex Mark III and Mark IV).

**2.11 Thermal break:** To eliminate all possibilities of thermal conductivity, a true thermal break separates the exterior skin from the interior one.

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

**2.13 Bottom weather seal:** U-shaped, flexible PVC weather seal, retained in a heavy duty extruded aluminum retainer, securely fastened to the bottom of the door.

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

**2.15 Track configuration options:**

○ Full vertical

○ Hi-lift of at least 48" (for the 24" high bottom section)

○ Hi-lift of at least 72" (for the 48" high bottom section)

**PART 3 – HARDWARE**

Hardware model 80-T (3")

For more hardware options, please consult **Hardware – Thermostop Industrial Doors** brochure

**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 pull chain
  - or with a chain hoist, recommended for doors over 10' (W.) x 12' (H.)
  - or with an electric operator
- 4.2 Electric operator:** Side mounted “Jackshaft” motor.
- electric motor XTRA-H or XTRA-HHD

For more electrical operator options, please consult **Operators – Thermostop Industrial Doors** brochure

**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 weatherstripping to form weathertight seal against the elements.