



THERMOSTOP INC., 3775 Losch, Longueuil, Québec, Canada, J3Y 5T7, Tél. : (450) 678-8666, Fax. : (450) 678-7765

STANDARD SPECIFICATIONS
BREAKFREE™ 400
Section 08 34 13 Cold Storage 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 :

- Doors to withstand a 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 section 01300.

1.5 Warranty: Thermostop doors and hardware carry a warranty of one (1) year against any defect or faulty workmanship. The Breakfree top and intermediate 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 :

- Fiber Reinforced Plastic (FRP) composite skins
- 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 : Breakfree™ 430 or 448, 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)
-----------------	--	---

2.4 Panel manufacturing process (top and intermediate sections): 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 Joint and seal:



THERMOSTOP INC., 3775 Losch, Longueuil, Québec, Canada, J3Y 5T7, Tél. : (450) 678-8666, Fax. : (450) 678-7765

- The top and intermediate sections high quality galvanized steel skins are roll-formed into an exclusive tongue-and-groove joint with a true thermal break and a double bubble-shaped weather seal.
- The bottom section is sealed on three sides (2 sides and top) by a double replaceable brush seal and at the bottom by an airtight double U rubber seal.
- The door perimeter is sealed with triple-lip, flexible PVC weather seal, retained in an extra-robust extruded aluminum retainer.

2.6 Door sections:

- **Top and intermediate sections:**
Polyurethane insulated 26ga. steel sections, white stucco finish.
- **Bottom section:**
Expanded polystyrene (EPS) foam core shielded on both sides by impact-resistant Fiber Reinforced Plastic (FRP) composite skins, 24" or 48" high, white finish. The bottom section and its hardware are designed to break free, outward or inward, upon impact and to be easily reset in place for continuous operation.

2.7 Thickness and insulation value:

4" (100mm) thick sections. Door insulation value is a combination of R-32 polyurethane insulated panels and of R-16 EPS insulated bottom panel.

2.8 Window or full view panel:

- 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.

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

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

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

2.12 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")
(See brochure **Hardware – Thermostop Industrial Doors**)

For more information, please consult with Thermostop Inc.



THERMOSTOP INC., 3775 Losch, Longueuil, Québec, Canada, J3Y 5T7, Tél. : (450) 678-8666, Fax. : (450) 678-7765

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 10' (W.) x 12' (H.)
 - or with an electric operator

4.2 Electric operator: Side mounted “Jackshaft” motor.

- electric motor XTRA-H
(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**.

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.