

# Breakfree™ 400



## Your unbeatable cold storage door!

The Breakfree™ 400 door is the cold storage door that offers the high insulation value of a 4" thick polyurethane door and the ability to break away upon impact.

This patented door is designed to release the bottom section on impact, from the inside or the outside, and to be easily set right back into place. The 4" thick expanded polystyrene (EPS) insulated knockout bottom section, in 24" or 48" height, is made out of an extremely resistant thermoplastic composite skin that can withstand heavy impacts.

The Breakfree™ 400 door is ideal for applications such as:

- Heavy distribution warehouses
- Grocery distribution warehouses
- Food processing plants
- Pharmaceutical warehouses
- Heavy manufacturing

Bidirectional impact-resistant 24" high bottom section  
Breakfree™ 430 shown hit from the outside



### Breakfree™ 400

#### Cold Storage Doors Series

#### Section 08 34 13 Cold Storage Doors

##### Impact-resistant and high technology material:

The 24" or 48" high Breakfree bottom panel are made using Fiber Reinforced Plastic (FRP) composite skins strengthened with an Expanded Polystyrene (EPS) foam core. The high-strength and low-weight FRP composite skin is the strongest commercial material available.

##### Bidirectional break-away hardware to withstand impact:

The hardware is engineered to allow the knockout bottom section to swing open outward or inward, upon impact. The break-away hardware makes it easy to put the door right back into place.

##### Well insulated:

The Breakfree™ 400 door is a combination of 4" thick (R-32) polyurethane insulated top and intermediate steel sections and an impact-resistant 4" thick (R-16) expanded polystyrene (EPS) insulated bottom section.

##### Designed for energy savings:

A deep tongue-and-groove joint with an integral double bubble weather seal ensures a superior airtightness. An authentic thermal break eliminates heat loss by preventing conductivity between external and internal skins. The bottom knockout panel has a double brush seal on three sides (2 sides and top) and a double U-rubber seal at the bottom. Triple-lip weather seal on the perimeter of the whole door.

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Tradition of quality



### Wind load design criteria:

Doors to withstand a wind load of 21psf (velocity of 90.5 miles/hour) with a maximum horizontal deflection of 1/120 of opening width.

### Impact-resistant and high technology material:

The high-strength and low-weight Fiber Reinforced Plastic (FRP) composite skin is the strongest commercial material available.

### Reference product:

Breakfree™ 430 or 448, as manufactured by Thermostop Inc., [www.thermostop.com](http://www.thermostop.com)

### Thickness and insulation value:

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

### 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)

### 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 thermoplastic composite skins, 24" or 48" high, white finish.

### Joint and seal:

- 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.

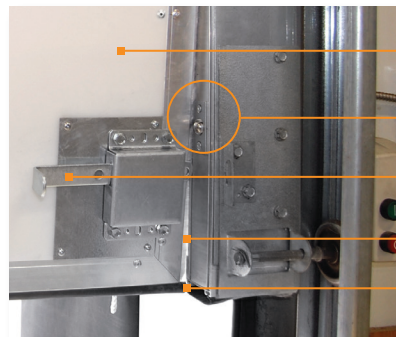
### Hardware and electric operator:

- Hardware model 80-T (3")
- Electric operator model XTRA-LH or XTRA-H

**Note:** For more information, please consult Hardware - Thermostop Industrial Doors and Operators - Thermostop Industrial Doors brochures.

### Breakfree bottom section features

- Ball Latch Reset System: holds the Breakfree panel in place and allows for easy resetting after impact
- Double replaceable brush seal on all 3 sides (2 sides and top) of the Breakfree panel
- Airtight double U-rubber bottom seal



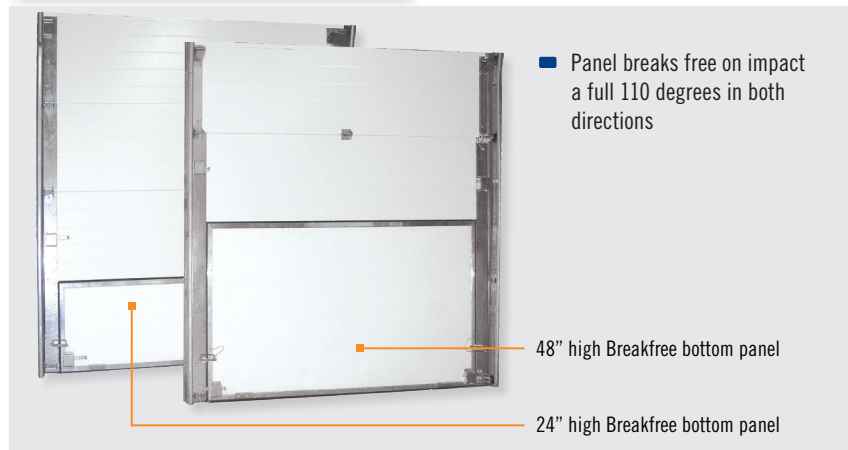
FRP composite panel, white finish

Ball Latch Reset System

Standard security slide bolt

Replaceable brush seal on all 3 sides

Bottom U-shaped seal



- Panel breaks free on impact a full 110 degrees in both directions

48" high Breakfree bottom panel

24" high Breakfree bottom panel



Breakfree bottom panel impacted from the inside



Breakfree bottom panel impacted from the outside

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3775 Losch Blvd.  
Longueuil (Quebec)  
Canada  
J3Y 5T7

**Phone:** 450.678.8666  
**Toll free:** 866.678.0123  
**Fax:** 450.678.7765  
**thermostop.com**

### Warranty

The Breakfree polyurethane insulated top and intermediate steel sections and hardware carry a warranty of one (1) year against any defects or faulty workmanship. The polyurethane insulated top and intermediate 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.

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