

Precise temperature control.

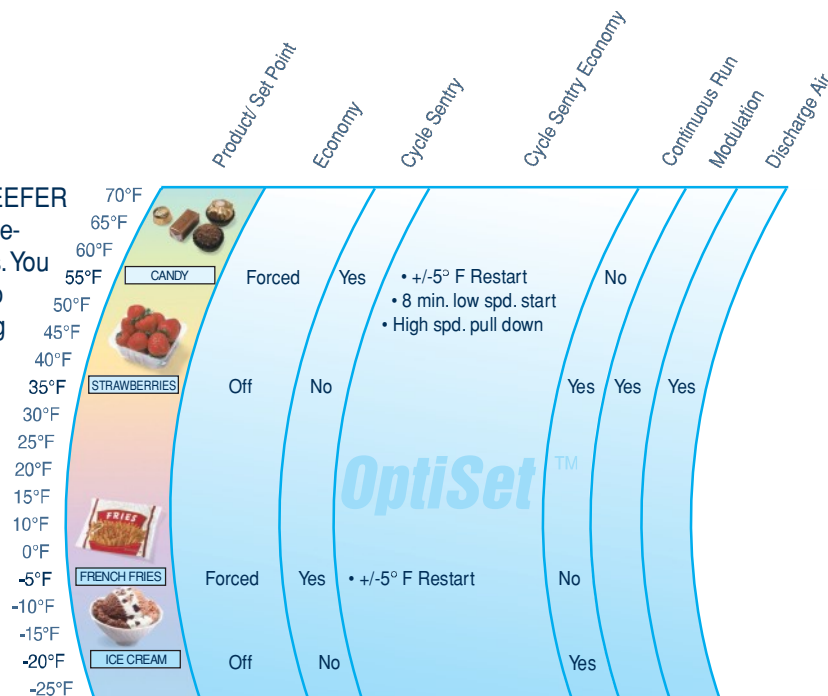


Structured temperature management with OptiSet.™

A unique, exclusive feature of the MP-VI SMART REEFER controller, OptiSet helps manage temperature requirements to coincide with your particular hauling needs. You can set up to 10 pre-determined conditions for cargo you regularly carry to assure that products are being hauled the way you and your customers want.

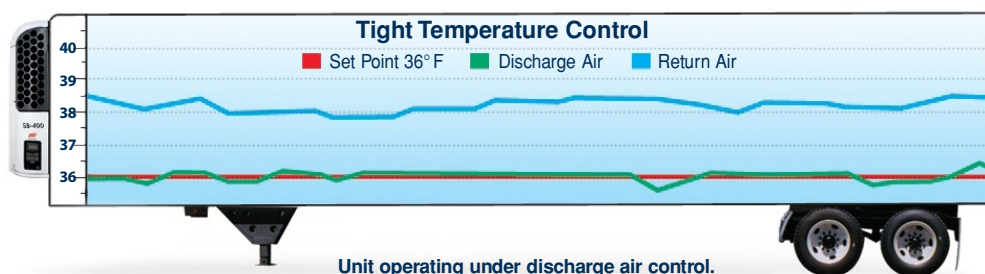
Discharge air temperature control for fresh loads.

To prevent "top freezing" of fresh loads, this unique feature works in conjunction with OptiSet when incorporated into the pre-set parameters.



Examples of Pre-Programmed Settings with OptiSet.

Hauling requirements can vary (for different as well as the same cargo). Your Thermo King dealer will help with all presets according to your needs.



ETV: Tightest temperature control on the road.

Thermo King's electronic throttling valve (ETV) incorporates the ultimate modulation control technology, standard on the SB-400. It maintains temperature within a very narrow band, allowing a supply of moist cool air to be delivered throughout the cargo with continuous circulation, thereby minimizing dehydration. Fresh cargo is delivered in superior condition ... top freezing is eliminated.

Proof of temperature control at delivery.

Customers and regulatory bodies alike demand tight control and accurate monitoring of temperatures throughout the "cold chain." The SB-400 provides just that through exclusive components such as the DAS datalogger and the optional R:COM system. Any aspect of a trips log can be recorded, retrieved (real time or otherwise) and stored. The DAS even has capacity to log data from up to six independent temperature sensors.

Unequaled high capacity & fast pull down.

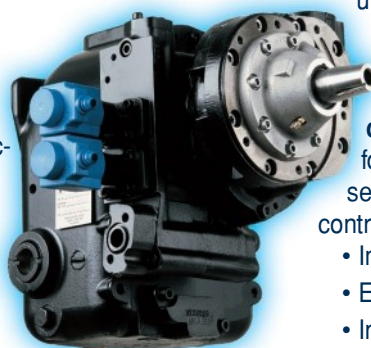


The SB-400 takes high cooling capacity to a new low.

The SB-400 was designed with deep frozen cargo in mind. For the trailer that is typically filled to maximum cube hauling ice cream or other deep frozen products, the SB-400 is ideal. Whether long or short haul, the SB-400 delivers product in optimum condition.

How is that achieved? To begin with, like its predecessor the Magnum, the SB-400 screw compressor, the S-391, uses twin rotor screws to compress the refrigerant to achieve its capacity and an extra suction port "capacity booster" to generate even higher capacity for deep frozen loads. The S-391 screw compressor offers distinct advantages:

- 80% fewer moving parts than reciprocating
- Smoother running, quieter and more efficient
- Greater reliability/less maintenance

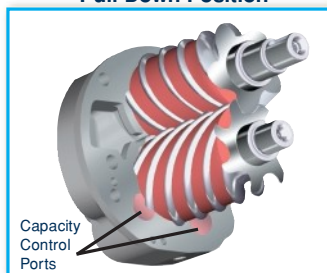


Introducing fully automatic capacity control.

The SB-400's screw compressor has two capacity control ports (featured below) that are the key to providing an unprecedented range of flexibility in temperature management. The position of these ports are controlled automatically in response to the required level of capacity: **closed**, for maximum pull down; **half open**, for power saving capacity control around set point; **fully open**, for critical temperature control at set point. The SB-400 provides:

- Improved pull down
- Excellent temperature management
- Increased fuel savings
- **No Compromises!**

Pull Down Position



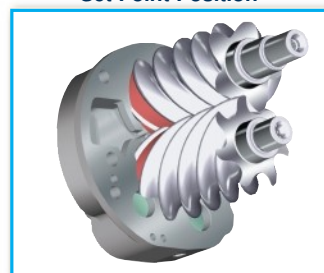
Maximum Capacity (both ports closed).

Power Saver Position



Moderate Capacity (one port open).

Set Point Position



Minimum Capacity (both ports open).

Maximum capacity at fresh or frozen.

Evaporator return air	Engine power	
	Btu/hr.	Watts
35°F (1.7°C)	60,000	17,585
0°F (17.8°C)	40,000	11,723
-20°F (28.9°C)	30,000	8,792

Getting to the right temperature faster.



It's simple math. The faster you can get the trailer temperature pulled down to the required level for the cargo, the faster you can load and be on the road. Well, thanks to a unique Electronic Throttling Valve (ETV), the SB-400 gives you the fastest pull down (and pull up) in the industry.

Peace of mind, whatever you haul.

NO COMPROMISES!

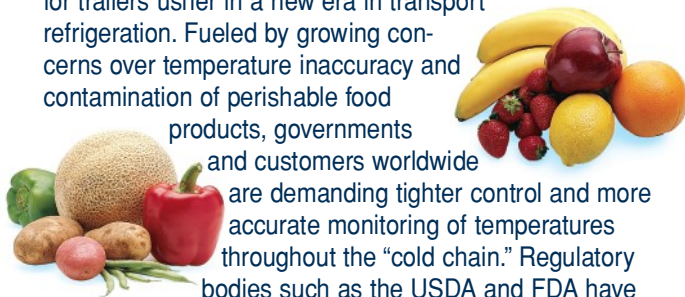
The SB-400 answers the call.

Without a doubt the SB-400 exemplifies the very best of Thermo King's SB truckload series. It provides unequaled deep frozen capacity and, at the same time, maintains the efficiencies and standards of the SB series in all other hauling categories. From fresh to frozen, the SB-400 will:

- Provide the best hauling conditions for any cargo
- Maintain ideal temperature control
- Provide the best fuel efficiency available

Leading the way in advanced cargo protection.

Thermo King's SB series of temperature control systems for trailers usher in a new era in transport refrigeration. Fueled by growing concerns over temperature inaccuracy and contamination of perishable food



products, governments and customers worldwide are demanding tighter control and more accurate monitoring of temperatures throughout the "cold chain." Regulatory bodies such as the USDA and FDA have become industry partners in this effort creating the Hazard Analysis Critical Control Points (HACCP) as a means of control. Thermo King's SB-400 meets these challenges and those of the transport companies head-on. The demand for reliability, temperature control, fast pull down, ease of use, fuel efficiency and quiet operation have all been met by the SB-400.



Precise control at any temperature for critical products.

The SB-400 provides the precise control and maximum capacity that many unique, but equally temperature sensitive products, such as blood plasma, require. Regardless of the cargo, the demands of the industry continue to require high capacity, fast pull down and precise control ... all provided by the SB-400.



Incorporates exclusive *Whisper* quiet technology.

With noise pollution becoming an increasing problem, Thermo King's *Whisper* quiet technology built into every SB-400 unit offers welcome added value.



SB-400 Specifications

DESCRIPTION

Microprocessor-controlled, high-capacity, frontmount, diesel-powered temperature control unit with directional air delivery for today's jumbo trailers.

MODEL AVAILABLE

SB-400: Cooling and heating on engine operation using R-404A refrigerant

OPERATION

- Single-switch operation
- OptiSet™ programmable temperature modes
- Continuous run/Cycle-Sentry™
- Automatic defrost initiation
- Programmable defrost timer

REFRIGERATION CAPACITY

System net cooling capacity at 100°F (38°C) ambient and high-speed engine operation.

Evaporator return air		Btu/hr.	Watts
		Engine power	
35°F (1.7°C)		60,000	17,585
0°F (-17.8°C)		40,000	11,723
-20°F (-28.9°C)		30,000	8,792

ENGINE

- TK486 direct-injection diesel engine
- Four-cylinder, liquid-cooled
- API classified CD mineral oil after break-in
- 15 qt (14.2 liter) oil capacity
- 34.0 hp rating operating at 2,200 rpm

COMPRESSOR

- Model S-391 with internal capacity control
- 23.8 cu in (391 cm³) displacement
- High strength driveshaft
- Lightweight, aluminum alloy oil separator body and sump
- All rolling bearings
- Twin rotor
- Full flow compressor oil filter with pressure bypass

SB-400 FEATURES & OPTIONS

SMART REEFER MP-VI controller	●
OptiSet™: Economy	●
Cycle-Sentry™	●
Cycle-Sentry™ economy	●
Continuous run	●
Modulation (return or discharge air)	●
Electronic Throttling Valve (ETV)	●
MP-VI built-in communications	●
Data Acquisition System (DAS)	●
EMI-3000	●
Whisper™ quiet technology	●
Easy-access design	●
Long-life coolant/silicone hoses	●
Directional air delivery	●
Vibration isolation system	●
Aluminum undermount fuel tank 50 gal. (186 liter)	●
Fuel tank, 110 gal. (409.2 liter)	○
Sleep mode easy switch	○
Fuel heater	○
Frost plug heater	○
Alternator, 65 Amp, 12V dc	○
Fresh Air Exchange	○
Chrome Grills	○
R:COM™ automatic data transmission system	■
Satellite communication systems	■
Thermo King bulkhead and duct system	■
Battery, 12V	■

● Standard feature

○ Option/factory installed

■ Option/dealer installed

WEIGHT (approximate)

SB-400 1690 lbs (773 kg)

Fuel tank,
50 gal. 35 lbs (16 kg)

DIMENSIONS

inches (millimeters)



Warranty Summary

Terms of the Thermo King Warranty are available on request from your local Thermo King dealer. Please reference document TK50046 for the Thermo King Trailer Unit Warranty.

Specifications are subject to change without notice.



Thermo King Corporation

Ingersoll-Rand Company
314 West 90th Street
Minneapolis, MN 55420-3693
www.thermoking.com