Food Safety, Quality Control and Operational Cost Savings come together through Thermo King’s Risk Management Training Program. Thermo King can provide Risk Management Training that outlines proper loading and unloading procedures and delivery practices that not only ensure food safety, but can have a tremendous impact on fuel and operational costs.

Pre-Trip Units Prior to Loading All Thermo King Units have a function called a pre-trip that verifies the unit is operating correctly prior to loading. It’s completely automated - just push a button and walk away. The unit will give a PASS, CHECK or FAIL message after about 15-20 minutes. This prevents costly re-loading of the trailer, but more importantly it may prevent a unit from leaving the yard and breaking down on the road.

Pre-Cooling Unit Prior to Loading Pre-cooling the trailer prior to loading removes residual heat and prepares the trailer for loading. Best Practice is to pre-cool the trailer to the determined set point, but studies have shown in a typical food distribution application that even a 30-45 minute pre-cool could save money. Pre-cooling as little as 30-45 minutes versus not pre-cooling at all could save as much as $1.50 per trailer load in fuel by allowing the unit to get to set point quicker and entering low speed operation to maintain temperature (based on $3.00/gallon).

Turn Unit Off When Loading Prevents the unit from pulling in warm moist air from the outside either from the dock or from gaps in the dock seals. When moisture is pulled in, unit must work harder and will cause the unit to perform automatic defrost cycles to remove ice that will build up on the evaporator. This could cause food safety issues by not having the product at temperature when loaded. In addition, not running the unit 1 hour extra per day could save as much as a gallon of fuel per day. Adding electronic door switches will shut unit off automatically when doors are open.

See Risk Management Brochure (TK# 51995) for Checklist
Delivery Check List:

- Be sure both the product and trailer/body are at the desired temperature before loading.
- Turn reefer unit ‘Off’ before opening doors. This can be done automatically by adding electronic door switches.
- Minimize number and duration of door openings.
- Box Temperature Recovery – Give unit time to recover box temp. from when doors were open.
- When delivering – Turn unit off, ensure tight seal between trailer/body and doors.

Tips for Proper Airflow:

**You should always:**

- ✔️ Use three-way block pallets to help provide adequate air flow
- ✔️ Load evenly and in patterns that provide adequate air space.
- ✔️ Provide adequate air space between top of the cargo and ceiling.
- ✔️ Remove all debris and obstructions.
- ✔️ Exercise Caution!

Loading Check List:

- Make sure your packaging is:
  - Crush-proof
  - Non-vented for frozen products
  - Vented for fresh products
- Confirm product is at desired temperature before loading.
- Run unit 20 minutes in “high speed cool”
  - Perform Automatic “Pre-Trip” - unit MUST pass.
  - If Pre-Trip fails, follow company procedures or contact your Thermo King Dealer.
- Set unit controller to the desired temperature.
- Ensure correct Mode selection
  - Choose Continuous Run or CYCLE-SENTRY DO NOT GUESS!
- Pre-cool trailer/body to desired temperature.
- Verify product temperature to confirm it is at the desired temperature.
- Turn unit ‘OFF’ while loading.
- Load cargo quickly and efficiently.
- Stabilize the load to minimize load shift risk and resulting cargo physical damage.
- Initiate Defrost Cycle to clear evaporator coil.

Do Not:

- ✔️ Block unit evaporator air inlet (return air).
- ✔️ Load product tight against unit, walls or doors.
- ✔️ Load product to ceiling - it causes air to short cycle.
- ✔️ Obstruct floor under cargo.
- ✔️ Use slip sheets or hand stacking.

Why is proper airflow critical?

Poor air distribution causes product deterioration, even with adequate unit capacity. Obstructions cause poor air flow and product hot spots.