

## 6 Mistakes to Avoid When Spec'ing Refrigerated Truck Bodies

While spec'ing a refrigerated truck, it is important to consider airflow requirements, chassis compatibility, and function. Cutting corners and costs to maximize fleet dollars while spec'ing can be more expensive for the fleet and its company in the long run with the potential for ruined product and unsatisfied customers. Asking the right questions up front is key to successful spec'ing.

Refrigerated trucks serve the same purpose whether the product is poultry, meat, seafood, produce, ice cream, or flowers — to keep product at the precise temperature that's acceptable for the recipient. To do otherwise would be ruinous, both to the transporter and its client.

"If you deliver to a fast food restaurant, for example, and its [signature chicken patties] need to be kept at, say, 42-degrees Fahrenheit, and they arrive at the store at 45-degrees Fahrenheit, the manager can reject that load," said David Duford, truck specifications analyst at ARI, a full-service fleet management firm that has clients worldwide. The result: unhappy customers, wasted product, and extra trips to the warehouse — all of which drive up operational costs.

With so much at stake, how can fleet managers protect their organization's reputation and bottom line? Avoid making these six mistakes when ordering new refrigerated trucks:

### 1. Underestimating the impact of insulation on interior dimensions.

"A standard, plywood-lined 24-foot van body might be 23 feet 9 inches on the inside, but a refrigerated truck might only be 23 feet, depending on the insulation package, the doors, and other various features of that specific truck," Duford said. "So, if a client is looking for a truck that can accommodate forklift-pallet loading, and is looking to be able to load two pallets side-by-side inside the box, you might not make it with a five-inch insulation wall. But, if you reduce the insulation 1 or 2 inches to accommodate the pallets side-by-side, you might not have enough insulation to keep a product frozen."

### 2. Selecting the wrong type of rear door for the application.

"A fleet manager may choose roll-up doors versus hinged doors for ease of use, but may not properly consider the loss of insulation value over time with the roll-up doors," said Rich Barrett, truck product manager for Thermo King, a producer of temperature and climate control products for the transportation industry. "This can mean higher operating costs or temperature control problems if the refrigeration unit isn't properly sized to accommodate the loss of insulation value. An alternative would be to consider hinged doors that will better maintain their insulation performance over time."

Tim Riley, district sales manager for Supreme Corporation, a full-line manufacturer of truck bodies, advised fleet managers to consider delivery type — multiple stops, diminishing load throughout day versus full load/unload delivery — when spec'ing the rear door.

“If you're calling in saying you want to haul ice cream, but want a roll-up door, let's talk about your operation. If you're making multiple stops delivering ice cream, you don't want a roll-up door because it allows too much cold air to escape, putting excessive stress on the refrigeration unit to keep product at proper temperature between stops,” Riley explained. “But, if you're hauling ice cream from point A to point B and unloading the whole thing at one time, then a roll-up door could work.”

When specifying a liftgate, keep the rear door type in mind as well, said Duford of ARI. “If you do a lot of dock loading, you want a tuckaway liftgate. If you spec a rail-style gate [that goes up and down along the outer edges of the rear doorframe], it might not work too well with swing doors, which means you might be stuck with a roll-up rear door.”

### 3. Neglecting to consider power interrupt switches.

Each time the rear door of the refrigerated box opens, the blower causes cold air to escape, while sucking warm, humid air from the outside into the body, creating inefficiencies that not only put extra stress on the refrigeration unit, but also jeopardize keeping the product at the acceptable temperature. That is, unless a power interrupt switch is spec'd.

“If you don't have a blower interrupt switch on the door, you fill that body up with warm, moist air every time that door opens,” observed Riley of Supreme Corporation. “The coils in the refrigeration unit that are hit with the moist air begin to frost, forcing the refrigeration unit to go into defrost mode, which heats the coils to remove the frost. If you get to the next stop, and the unit hasn't had a chance to fully defrost the coils, it may feel like the refrigerated unit isn't cooling properly. But, if you get the interrupt switch, you can open the door, and the blower shuts down. The cold air stays inside the body; the warm air stays out — making it easier to maintain proper temperature inside the box throughout the day.”

### 4. Mismatching chassis specs to the body requirements.

“A critical mistake to avoid is ordering the chassis without verifying frame height at the rear of the truck frame and not realizing there's a problem until it arrives at the body company,” Riley said. “The body vendor cannot install the

body because the box [as originally spec'd and built] exceeds the truck's overall height requirements. Also, you may run into issues with liftgate range, if the chassis is too high. The liftgate might not touch the ground when lowered, making it impossible to roll pallet jacks and food carts on and off the platform."

Riley recommended fleet managers work closely with both chassis and body manufacturer representatives to ensure compatibility with the specs before signing off on the vehicle order.

#### 5. Overlooking the importance of airflow.

"Spec'ing a box with inadequate airflow when loaded can result in uneven cooling and cargo damage," warned Barrett of Thermo King. "It's important to specify the body to ensure proper airflow around the product for uniform cooling."

A key to achieving proper airflow is floor selection. How the product is loaded — whether on a pallet, in milk-type crates, or boxes — will dictate the best floor. Consult with a body manufacturer to determine the optimal floor spec for the application.

#### 6. Under-spec'ing body and equipment to keep costs down.

"There are several factors that can result in an inappropriately spec'd refrigerated body, including an emphasis on a lower up-front cost," Barrett cautioned. "This can lead to selecting a less-insulated box to save money, but may result in greater operating and lifecycle costs over the life of the box."

Duford with ARI agreed. "The temptation is to look exclusively at initial cost. But, if fleet managers don't truly evaluate how the truck is being used, they may cut back on insulation, or they may go for a smaller [refrigeration] unit — all with the aim to cut costs," he said. "But, in the end, they're having to pay more to operate the vehicle."

#### The Bottom Line

The key to avoiding these mistakes, said Riley with Supreme Corporation, is to continually increase knowledge of the full array of options available for refrigerated trucks and then challenge the fleet's existing specs.

"The truck buying process should not be a once-a-year event. Instead, gather information all year long," Riley said. "Ask yourself: Has anything changed in our operations since the last time we purchased a refrigerated truck? If so, how should we adjust our specs to accommodate those changes? Have there been new technology developments [that impact chassis, body, or refrigeration unit specs] that could add value to our fleet operation?"

This way, Riley added, when it comes time to make a decision on refrigerated truck specs, you're informed and have a good knowledge of what's available and to select what's most appropriate for the application and your budget.

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