Case Study: Reusability's returnable, reusable packaging solution keeps waste out of landfills, cuts costs for Thermo King North America.

Background & Challenge
Thermo King is the leader in end-to-end, temperature-controlled cold chain solutions. With parent company Trane Technologies, it has committed to reducing its customer carbon footprint by one gigaton of CO2 by 2030. To reach this lofty goal, Thermo King sought to replace its disposable wood crating with a returnable, reusable solution for delivering auxiliary power units and diesel-powered truck lines to dealers and original equipment manufacturers (OEMs).

Solution & Results
Once Thermo King designed its new reusable steel and plastic packaging system, it partnered with Reusability to recover the packaging from the company’s network of dealers and OEMs before returning to its manufacturing facilities. With the switch to reusable packaging, Thermo King checked a number of big boxes on its sustainability list. Among the largest was removing 2,000 tons of wood waste annually from landfills. Additionally, its dealer-partners no longer have disposal costs associated with the old wood crating. Another plus—moving to returnable-reusable packaging cut the company’s transportation logistics and packaging spend by 43%.

Thermo King realized a number of other benefits. The more durable steel and plastic construction delivers enhanced product protection, an important consideration for high-cost products. The reusable packaging is also less labor intensive; workers no longer have to break down wood crating and manage disposal. This also removed the risk of injury from nail guns and splintered/broken wood. Thermo King now has plans to convert additional products to reusable packaging.

Market(s): Automotive Beverage Produce Retail

Solution: Replaced single-use wood packaging for power units with reusable pallets, steel crates and sleeves.

Key Outcomes:
• Remove 2,000 tons of solid waste to landfills annually
• 43% reduction in transportation logistics & packaging spend
• Eliminated disposal costs for dealer-partners
• Enhanced product protection
• More efficient warehouse operations
• Safer handling for workers