

VOLVO



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CASE STUDY: Volvo Partners with Orbis to Create a More Sustainable Reusable Packaging System for Their Model XC90 Steering Wheels.

Background & Challenge

Volvo historically packed their steering wheels into single-use cardboard boxes that allowed for 30 parts per container. With the operation, these corrugated boxes required operators to bend down, reach far, and maneuver around the container. Volvo was seeking a more sustainable reusable packaging option to reduce waste, emissions, and offer a more ergonomic assembly lineside.

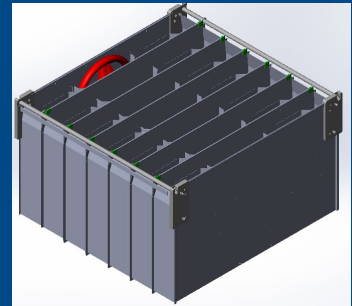
Solution & Results

In 2021, Volvo turned to ORBIS Corporation to assist in finding a reusable container packaging solution to accommodate 30 steering wheels. ORBIS rose to the challenge, exploring two designs of the "AdjustaPak". The first included a robust frame with multiple rails and hanging fabric dunnage that was then inserted into the bulk container. The second style removed the metal frame and instead used steel rods and hanging fabric dunnage.

The second design was selected due to the additional 1.5 inches of space along the side of the container, allowing the steering wheels to be placed farther apart for better part protection and space utilization. The AdjustaPak fits into the ORBIS BulkPak container.

The prototype was finalized in January 2022 and entered the testing phase in April 2022 at the Volvo plant in Ridgeville, South Carolina. The AdjustaPak fully launched at the facility in August of 2022 with 168 systems in use.

Volvo is able to fit more steering wheels per container, which means more containers per truck, reducing the number of trips and subsequently shipping costs and Co2 emissions.



Market(s): Automotive

Solution: Design an ergonomic reusable packaging system to reduce cost, emissions, and streamline assembly.

Key Outcomes:

- Emissions reduction of 2.7 tons due to fewer return shipments
- Waste savings associated with one-time use packaging of approximately \$110,000
- Volvo will realize \$2.5 Million in savings by 2029



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