



## Analysis of Active vs. Passive Pallets

### Case Study

#### CHALLENGE

Identify the most economical shipping option in an operating environment with little tolerance for temperature variation.

#### SOLUTION

Create a detailed methodology on when and where passive pallets could be used and still sustain product integrity.

#### RESULTS

- ⇒ 100% temperature control
- ⇒ Sustainable solution
- ⇒ \$500,000+ savings potential in international air shipping costs

For more  
Information please visit

[www.trans-solutions.com](http://www.trans-solutions.com)

Trans-solutions, Inc.  
391 Totten Pond Rd.  
Suite 103  
Waltham, MA 02451

(617) 965-3010

### Global Pharma Company Saves \$500,000 + Shifting from Active to Passive Pallets for International Shipments

#### Client/Situation

A multi-billion dollar pharmaceutical manufacturer wanted to evaluate the potential to cut international freight costs by changing shipping methods for temperature-sensitive products. The dominant shipping method for such products is active pallets that plug into an outlet for cooling. Envirotainer and CSafe are examples of active pallet suppliers. Due to the limited number of suppliers, lease costs for the units are high and the 635 kilo unit weight increases weight-based air and surface freight costs. Passive pallets are less expensive but use PCMs and gel packs for cooling and are not practical for extended ship times. The company asked Trans-solutions to recommend the best shipping method to reduce costs while ensuring product integrity.

#### Challenge

The product (drug product), stored in vials, had to be maintained at 2 – 8°C. To determine if passive shipping systems could reliably sustain this temperature, it was necessary to analyze dozens of different factors, including:

- All storage and transport legs and method of cooling at each building/flight/truck
- Time for each leg
- Efficacy of holding the temperature
- Every cost element to ensure an accurate cost comparison

Larger-sized passive pallets are relatively new, so significant data had to be gathered from vendors on packing methods and materials.

#### Solution/Results

Trans-solutions determined that, for the specific lane examined, annual savings of \$203,000 was possible with a shift from active to passive pallets for a percent of shipments. The analysis clearly indicated the criteria required (product type, origin, airport used, transit time) to trigger use of a passive pallet option. When applied across this company's global supply chain, the strategy would save over \$500,000 annually for just international air shipments.