

IMPROVING FACILITY EFFICIENCY



HIGH-TECH SENSOR MANUFACTURER IMPROVES QUALITY AND REDUCES COSTS THROUGH STREAMLINED CROSS-BORDER SUPPLY CHAIN

A leading global manufacturer of highly engineered sensor devices, appliances, industrial and military equipment, among others, needed to reduce costs. The company relocated most of its manufacturing operations overseas, but retained limited North American operations to serve customers primarily in the United States and Canada. These changes forced the sensor manufacturer to reevaluate its North American supply chain as they needed to ensure their cost-effective operations and high levels of customer satisfaction were not compromised.

As part of the plan to implement a more streamlined supply chain, the company sought to improve efficiency at its two remaining U.S. facilities based in Texas:

- A cross-dock near the U.S.-Mexico border that plays a key role in facilitating inbound and outbound shipments for a manufacturing facility near Guadalajara, Mexico; and
- A distribution center near Fort Worth, Texas, that coordinates shipping to locations throughout North America.

THE CHALLENGE

Based on a long-term supply chain management relationship, the sensor manufacturer asked DHL to assess and address the unique challenges at each of the two sites.

At the cross-dock facility, the DHL team discovered that 90 percent of shipments arrived without customs paperwork required for clearance into Mexico. The additional administrative work resulted in an average of 18 percent overtime per month, which added substantial labor costs.

Transportation costs were also high. For instance, all shipments were arriving at the cross-dock by a less-than-truckload (LTL) carrier, which decreased efficiency and drove up costs compared to transportation alternatives.

At the distribution center, DHL's assessment showed a critical need to improve inventory management and enhance quality control to increase the accuracy of orders shipped to customers. Further, the facility needed to reduce turnaround times so that inbound materials from the cross-dock could be shipped to customers more quickly.





Challenge

- Improve cycle times
- Reduce overtime and administrative expenses
- Cut transportation costs
- Improve operational efficiency

Solution

- Traffic consolidation
- Educate suppliers on import/export documentation
- Implement scanning technology
- Deploy milk run system

Benefits Summary

-  Efficiency
-  Transportation costs
-  Staffing costs
-  Inventory accuracy

“A strategic assessment of the situation enabled our team to work in partnership with the client to develop solutions for all challenges. This approach enabled the manufacturer to effectively deploy a streamlined supply chain that provides a competitive edge. The partnership resulted in concepts that the client is now adopting in distribution centers around the world to improve customer service and reduce costs”

– Brian Locasto, DHL’s senior director of operations for the technology industry

THE SOLUTION

Based on these findings, DHL assembled an experienced team to create a solution to meet the needs of the sensor manufacturer.

At the cross-dock, it launched several initiatives to improve use of proper shipping documentation, reduce traffic congestion and improve transportation efficiency. Key initiatives included:

- Completion of supplier workshops to teach vendors how to ensure documentation complies with requirements for importing commodities into Mexico.
- Design of “milk run” routes — a system of pickups at supplier sites — to eliminate more costly LTL shipments. This strategy enabled the manufacturer to consolidate freight shipments into full truck loads.
- Continuous improvement workshops to facilitate the identification of additional efficiency opportunities for the manufacturer.

At the distribution center, DHL focused on improving quality control to enhance shipment accuracy to customers.

The team deployed a scanning system to save time and improve accuracy throughout the facility. For instance, facility staff now only needed to scan one bar code at key steps to:

- Validate the part and quantity for the order before the product is taken off the line.
- Populate the “ship to” address and bill of lading. This process eliminated errors in selecting the wrong location and other errors related to manual processes.
- Close an order in parcel tracking systems.

Scanning was also introduced to eliminate a manual audit step in validating inbound materials. This program improved inventory control at the point of receipt and saved time.

Lastly, DHL became the final quality-control check on parts before being shipped to the end customer.

THE RESULTS

The manufacturer exceeded its goals.

At the cross-dock facility, the initiatives:

- Reduced customs noncompliance significantly, which improved turnaround time and reduced overtime from 18 percent to two percent for annual savings of more than \$85,000.
- Improved cycle times from 36 hours to eight hours.
- Eliminated 80 percent of LTL carrier usage with an estimated annual savings of \$972,000.

At the distribution center, DHL’s initiatives:

- Reduced cost per case by 7 percent, for annual savings of \$144,000.
- Reduced time to produce bill of lading by 50 percent.

The distribution center systems were considered so successful that the manufacturer adopted them as best practices in its facilities around the world.

To take your operations to new levels of efficiency and quality, you need an experienced partner that can deliver measurable results. Contact DHL today for consulting and analysis services to help you improve your supply chain.

For further information:

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