



## SI Engineering & Design Study (EDS)

### Expand Pick Order Capacity

#### Overview

KISS USA merged its four regional distribution facilities into a single 485,000 sq. ft. warehouse. Now the challenge was managing a complex and diverse distribution network of about 50,000 retail locations, a rapidly growing consumer base, comprising three sets of end customers: big box retailers, independent beauty stores and individual eCommerce consumers.

KISS USA is a major supplier of cosmetic beauty products in the United States supporting tens of thousands of mass retailers, independent beauty stores and individual online shoppers.

#### Challenges:

- Shrinking the labor workforce.
- Meeting accurate and timely order delivery.
- Streamlining sortation processes.
- Increasing the efficiencies of carrier operations.

*“The design and installation services exceeded our expectations. Great service. Knowledgeable team.”*

*~T. Kim, Operational Planning Manager*

## PROCESS

SI instituted a comprehensive study of the clients overall operations through a service called an [‘Engineering and Design Study.’](#) This study allows SI to analyze operations and determine a process flow that is fast, scalable, eliminates production bottlenecks and requires the least labor to operate. The study encompasses three overarching analysis:

- SKU Volume Analysis
- SKU Dimension Analysis
- Throughput Requirement Analysis

## SOLUTION

Based on collected data, SI developed a concept layout of an entire pick system, comprised of the following:

- SI Exclusive [Pick-to-Tote Aframe](#)
  - SI Pick-to-Light
  - Pack-Out Stations
  - SI WCS Software Suite
  - Manual Pick Shelving
- Exception Processing Dock
  - Conveyor Belts



[Learn More - Read the Case Study](#)

## RESULTS

### 70% Increase

#### Fulfillment Capacity

A 70% expansion to order fulfillment capacity and an added 1,700 unique items into the existing SKU set.

### 27.5% Increase

#### Throughput Growth Factor

Over 27.5% increase in throughput growth factor allowing an increase of order velocity from 1,600 to 2,040 orders/hour.

### 40% Reduction

#### Pack-Out Rate

The SI Exclusive Pick-to-Tote A-Frame cut down downstream activities by 40%, significantly shortening the pack & ship process.

*With the Pick-to-Tote A-Frame, the client can take advantage of speeds of up to 3600 orders/hour, order fulfillment accuracy levels of up to 99% and potential labor cost savings ranging from 75-95% with the nearly touchless pick system.*