

**Is this You?**

Is your pick-pack operation inefficient and difficult to manage? Are orders sometimes fulfilled late and is order accuracy a problem? Are your order sizes smaller but contain more SKUs? Does it seem as if your pickers are walking further but picking less merchandise? Does it feel like you are doing internet fulfillment even though you're doing wholesale? Perhaps you are even doing e-fulfillment as well! SDI has a solution!

**The SDI Sorter Solution-** SDI Industries offers a low cost sorter solution that can dramatically reduce the operational costs of traditional pick-pack methods. Typical benefits of SDI's sorter solution include:

- **Labor savings – 50% or more are achievable**
- **Reduction in space**
- **Improved throughput and accuracy**
- **Easy expansion**

**How does this solution work?**

- Dramatically reduce the number of SKU locations visited – **less labor**
- Minimize travel distance by easily over 90% - **less labor**
- Simplify storage requirements by often eliminating the need to have both active and reserve locations - **less space, improved storage density, lower cost of storage systems.**
- Eliminates replenishment of active locations – **less labor.**

**Batch Picking:**

Orders, often hundreds at a time, are grouped together and batch picked: a single pass of inventory locations is made to pick all merchandise for all the orders.

**Unit Sortation:**

Picked merchandise is brought to and inducted onto the SDI sorter. The sorter automatically assigns, sorts and records what merchandise was dropped at each chute and in each carton.

**Benefits of the solution include:**

- The sorter counts, not operators – **improved, near 100% accuracy!**
- Induction rates per person of 1000 – 3000 UPH – **more efficient.**
- Sorter Rates of 5,000 – 13,000 UPH available – **more throughput.**
- System automatically captures carton contents – **less labor.**
- SDI's software system allows induction of the next group of orders before completion of induction of the prior group of orders - facilitates, continuous sorter utilization.

\*The SDI solution works regardless of order size, it even has special e-fulfillment functionality for singles and small order grouping.



Methodology	Entry System Cost	Relative Cost To Expand	High Volume System	Space Utilization	Efficiency	Accuracy	Count Units
Traditional Cart Picking	Low	Proportionate	Low	Low	Poor	Poor	Manual
Automated Pick & Pass	Moderate	Almost Proportionate	High To Extremely High	Poor	Medium	Medium	Manual
Put to Light	Moderate	Less Than Proportionate	High	Medium High	Medium	Medium	Manual
SDI Sorter Solution	Moderate	Much Less Than Proportionate	Moderate-High	High	High	High	High

(This is a comparison as many varying factors are involved. Please consult an SDI representative to obtain a greater understanding. However, the following should be noted- if SKU growth occurs, the Pick Pack Pass System cost grows almost proportionality in size and in cost, whereas there is little effect on the SDI Sorter Solution. As there is less commonality between orders for the same SKU and / or the number of units per SKU per order becomes less, the PRL solution becomes increasingly inefficient and more modules and cost is required.)

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# SDI News

**WELCOME**

Welcome to the third issue of SDI News, the newsletter brought to you by SDI Industries USA, which is designed to bring you the latest updates about our company from around the world. We hope you enjoy it and would welcome any comments you might have about this newsletter- please send your feedback to [www.info@sdiindustries.com](mailto:www.info@sdiindustries.com)

Krish Nathan- President SDI Industries



**SDI Industries**

Is gearing up for our fifth Annual Logistics & Supply Chain Forum. We have reserved a block of 150 rooms for our visitors and locked in a great early booking rate at The Four Seasons Hotel in Las Vegas, NV. To Register and sign up for our free room give- a- way, go to our website at [www.sdiindustries.com](http://www.sdiindustries.com) now!

**SDI & RTI Integration**

SDI is ringing in the New Year with the exciting announcement that we have officially combined a single team out of the SDI and RTI organizations.

Effective immediately, the RTI name is being retired and all of our RTI associates integrated into the SDI organization.

Bringing the companies together under one umbrella strengthens our identity as a leading integrator of material handling systems.

SDI is committed to providing our customers with a complete solution for their integration needs and we fully expect this bonding of SDI and RTI will further enhance their experience in Design and Integration as well as in Support.

Our software Maintenance Support Customers will note this change when calling into our 24 hour support hotline, as the phone will be answered with an SDI greeting. Within the first quarter of 2010 we expect to complete the unification so that all of our customers will have a single support number to call for Mechanical, Software, and Controls support.

We are confident that this restructuring will strengthen our organization while providing better service and superior results to our customers!

The SDI Team wishes everyone a Happy and prosperous New Year!



Mary Adams  
CEO / SDI Industries

# DOTS

a case study

"DOTS ALONG WITH SDI INDUSTRIES HAVE REACHED A MILESTONE IN THE MATERIAL HANDLING WORLD WITH THE CREATION OF A NEW KIND OF SYSTEM."

Dots is a fashion apparel specialty store offering the newest fashion trends at exceptional prices, every day. The brand targets woman from 18 to 44 years old who are inspired by current fashion trends, but don't want to overpay for it.

The organization reacts with a unique fast fashion sourcing model to deliver runway trends at exceptional prices, every day. It is this balance of speed and fashion that has helped Dots to emerge as a force in the highly competitive retail landscape. Dots stores receive new shipments twice a week, to keep the fashions fresh and fun. The organization's growth and success was founded on a passion for retail that stems from a belief that looking good shouldn't be expensive. Dot's seizes the opportunity to celebrate the every day woman with endless fashion possibilities that are fast and frequent.

The organization embraces the customer's expression of personal style and sells the hottest global trends. Today and tomorrow, Dot's strives to be her trusted fashion expert and continue a unique girl-friend relationship.

## Overview

Dots partnered with SDI to create a system capable of delivering our fast fashion sourcing model in our new headquarters' distribution center.

Dots has a long commitment to technology and is well known for their ability to efficiently process goods at exceptionally low cost. The company quickly grew to support over 400 stores and over 40 million units. However, when Dots' old distribution center hit capacity, the twenty+ year old chain recruited SDI with the mission to support and grow the chain to over 1,000 stores.

The new Dots distribution center is a state-of-the-art application of proven mechanical approaches controlled by 21st century information processing techniques

The SDI Controls System will utilize the down loaded Dots' PO and allocation data to perform all of the requisite tasks including ASN or non-ASN (Automatic Ship Notice), receiving internal work station routing of each carton, unit sorting and packing, shipping and manifesting and cross-docking all cartons in the process. In short, virtually all of the materials handling support functions are eliminated and the direct labor functions are automated, resulting in an incredibly productive, same day distribution to large and growing Dots chain of retail stores.

## The System

Dots download's its PO and EDI ASN label info if available to SDI prior to or at the same time of physical receipt. If the receipt is EDI ASN, the un-loader can simply off load each carton on to an inbound conveyor and it is transported to a routing scan station where it is received by SDI.

Alternatively, the operator can RF Scan the labels on the dock or even apply labels, if needed. There are six receiving conveyors which merge to become one of four lanes of high speed merge.

This merge inducts up to 80 cartons per minute on to the heart of the system, which is the routing sorter. This dual-sided flat sorter delivers each carton to one of 14 possible destinations; eight ship lanes, two flat sorter induction lanes, one print and apply lane, one value-added services (VAS) lane, one no read lane and one storage system lane.

At the routing scanner, SDI assigns each carton destination based on the Dots allocation of the SKU(s) contained therein. If the carton SKU quantity matches to a store allocation, the carton is immediately cross-docked to one of eight shipping lanes on the routing sorter (Intellisort, flat sorter). At that point, it is headed on to an outbound trailer, literally within minutes of receipt and with only two physical touches – unload and load. If the carton is cross dock-able but requires an added label, it is routed to the print and apply (Panda) lane. At the routing scanner, every carton is also weighed and dimensioned to provide that data to the outbound manifest again, without human intervention. Where allocated store quantities are less than received carton quantities, SDI routes each carton to one of two 325 drop Bomb Bay sorters for a break pack sort to each store. SDI manages the division of cartons exactly so that the units within all cartons are delivered to one sorter and are consumed there.

For the single carton of a SKU, which contains units for each sorter, the router sends it to "Panda," where a special label is applied. That label then directs the carton to VAS area. When a VAS operator scans the label, they are directed to split the carton in to two, as required for each sorter.

Each of the two new cartons are labeled and routed to its correct sorter. Filled store cartons leave the flat sorters and are then sorted to the appropriate shipping lane.

The two flat sorters combined allow up 12,000 trays per hour to be sorted, with up to eight inductors possible to ensure maximum utilization. Since Dots buys only bundles, the 96,000 trays per shift can easily represent 200,000 – 300,000 units per shift or 96,000 single units per shift; if their buying philosophy should change. This sorting engine will easily support the potential expansion from 650 stores to the targeted max of 1,000 store locations.



\*An independent consultant retained by Dots has projected a 40% increase in productivity under the new system.

Total Processing Space – 62,000 sq. ft. on floor / 8,000 sq. ft. work platform  
Storage and Future Expansion – 135,000 sq. ft.  
Total Units – 42,000,000  
Flat Sorter Units – at 63%-26,460,000  
Cross Dock Units – at 35%-14,700,000  
Non-Conveyable Units - @ 2%-840,000  
Inbound Units/Case ARE 23- 11,826,087  
Outbound Units/Carton ARE 26- 1,615,385  
Flat Pack Units/Cartons ARE 40- 630,000  
Average Units/Throw ARE 6- 4,410,000  
Daily Production – 7,300 cases/day  
Receiving – 7,300 cases/day  
Unit Select Induct – 105,840  
Units/Day – 17,640 throws/day  
Unit Select Pack – 2,646 cartons/day  
Non-Conveyable – 3,360 units/day  
Shipping – 6,462 cartons/day

