SIMPLY FASHION STORES

Executive Summary

Simply Fashion Stores is a distributor of women's clothes selling them at their retail outlets located East of the Mississippi River. Simply Fashions is located in Irondale, AL. They have approximately 400 retail stores located all over the eastern half of the United States.

The issues at Simply Fashion Stores were they needed more inbound processing lanes, more order fulfillment positions due to store growth, automate the conveyor system and increase throughput. The result was an increase in processing/fulfillment lines by 30% install of Warehouse Management System (WMS), change the conveyor system to allow cross dock, automating the conveyor system, increase through put by conveyor changes and radio frequency in the fulfillment area. Net overall result was an increase in processing time and fulfillment time of 40% and a net increase of outbound cartons of 35%.

Details

Simply Fashion Stores engaged Distribution Consulting for a complete review of existing warehouse functions and operations. Simply Fashion Stores is a push system as they hold no inventory. As a truck arrives they off load and place the goods onto pallets and the pallets are placed onto a gravity roller floor mounted conveyor section. Paper work is created for the order and the paper work is merged with a cone set onto the top of the front pallet of a SKU sitting on the gravity roller section.

For the goods to be processed a buyer of the goods would come to the warehouse to inspect the garments for design, fabric and color to insure the goods are what was ordered.

If the goods are bar coded with a UPC bar code then the only requirement was to make sure the pricing was correct. If the pricing was correct the goods came off the pallet and were placed onto a gravity conveyor by the case. The cone was placed onto the top of the first case. The entire group of cartons by the SKU was

pushed done the conveyor to the splitting area. A splitter would then look at the cone paper work and mechanically split the cartons going to the various fulfillment lines associated to a store. The splitter would write on the cartons what lines the cartons went to and paper work would be sent with the front carton. The cartons would travel on a powered conveyer and go up to a mezzanine level. A person would manually move these cartons onto the right delivery conveyor going to the right fulfillment line.

At the fulfillment line an operator would pull out the paper work and start dropping the garments into the appropriate store number. A UPS shipping label would be attached to a carton and additional labels were held in a pouch underneath the carton. As the carton was filled the carton was shoved off onto a powered take away conveyor going to the UPS trailer. An empty carton delivery conveyor brought empty made up cartons into the line and the operator would reach up pull off an empty carton and place it into the empty slot for the store. The operator would get another label out of the pouch and place it onto the carton.

The issues with this existing described system were that it was all paper driven and vast amounts of clerical and keying data was required. There was no way to collect carton contents under this scheme. The conveyor delivery system was not what was needed. The splitting area needed to be automated. Buyers needed to be notified sooner to get them into the facility for the QC process thus allowing faster through put.

To accomplish this we purchased a WMS from HAL Systems.
http://webserver.halsystems.comwarehousemanagementsystem.aspx

As a truck backed onto the dock and paper work delivered to the receiving clerk he accessed the PO electronically on a PC. The order was printed out with a bar code on the print out associated to the order level. The cone had a permanent license plate/master unit label attached. The bar code on the order was scanned

using a radio frequency device thus attaching the order to the cone with a scan of the cone. Immediately an Email notification was sent to the appropriate buyer and a case of goods taken to the buyer check table. The buyer would immediately come to the warehouse and QC the goods. If the goods were OK there was a PC on the table and released the goods for processing. If the goods were rejected the buyer would reject the goods within the PC. The goods if rejected would move to a hold area to determine the disposition of the goods.

A material handler would scan the front cone sitting on top of the goods sitting on the floor mounted gravity conveyor from receiving. If the goods were released from QC hold they would then be moved onto the gravity processing lines and the cone placed on top of the leading carton. The cartons would then be moved down the line toward splitting. The splitter would scan the cone to gain the SKU and the WMS automatically split the goods. The splitter would place a bar code label on the front leading edge of the carton directing the carton to their respective fulfillment line. Each carton received a bar code to the fulfillment line. The headed label on the lead carton held the splitting information for the stores by the line.

In the fulfillment line we used radio frequency devices for the put personnel. The operator would scan the header label and on the screen of the radio frequency device would populate four stores at a time. The operator would look on the radio frequency screen and pick up the number of garments going into the first store and scan the carton shipping label. Under this scheme we started gaining carton contents electronically.

When the carton was filled it was shoved off onto the powered outbound conveyor going to a random automated carton taper. The carton was taped and would continue on the conveyor and would be scanned by a fixed conveyor routing the carton to the appropriate divert lane. This also had the added benefit of verifying a carton from fulfillment had passed by the ship confirm scanner.

The entire conveyor addition, conveyor logic, interfaces and installation was performed by BIPCO. www.bipco.com

This was also inclusive of tearing out old conveyor and replacing it with new and keeping the facility running as well. There were also two new fulfillment lines added in the process.

The overall results were the elimination of a majority of the paper work and the associated clerical. Through put was increased through processing by Email to the buyer and getting a faster release on an order. This carried right on through the splitting process since it was now automated. Thus goods moved to the fulfillment lanes faster. We eliminated the person on the mezzanine as we were now automatically diverting to the right fulfillment lanes. Fulfillment was faster and more accurate due to the radio frequency device. This also had the added benefit of gaining carton contents which made shipments to the stores accurate. Scanning prior to the divert lanes insured the right cartons going onto the right truck. All of this allowed Simply Fashions to move from 300 stores to 400 stores.