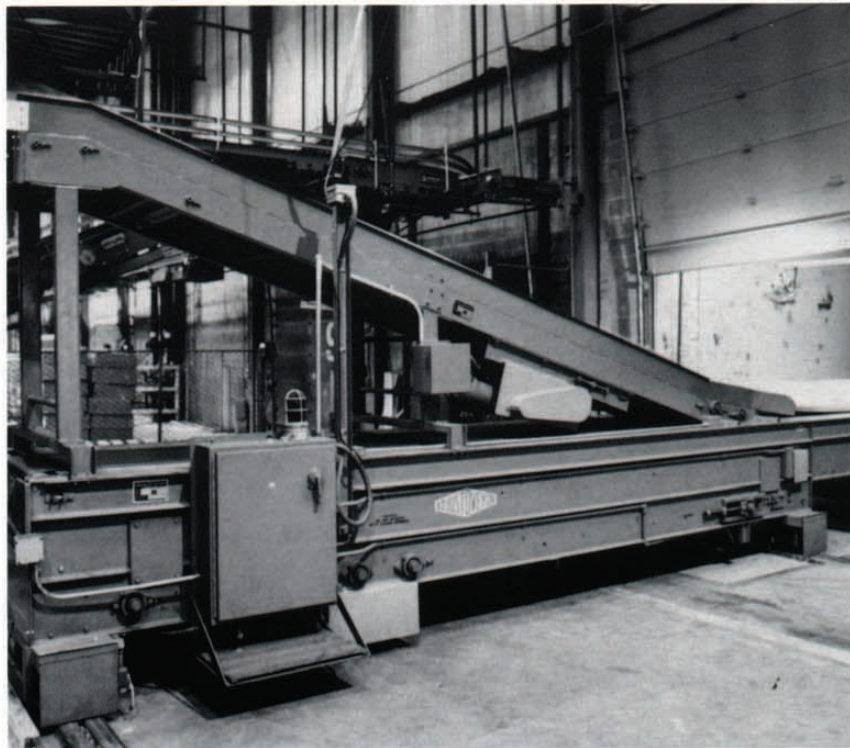


## A CASE STUDY: THE GAP STORES

The management team for The Gap's Eastern Distribution Center had big plans for their 415,000 sq. ft. facility. Their immediate goal was to double their warehousing capacity without adding space or employees. Their long-term goal was to utilize modern technology to develop a warehousing operation which was highly automated.



The Gap called upon Advanced Handling Systems to help make their plans a working reality. AHS was responsible for many areas within the system, including Receiving, Palletizing, Order Record Control, PicPac and Strapping.

### THE RECEIVING SYSTEM

The Gap system for Receiving, Opening and Sortation (ROS) begins at the dock doors. The Gap receives trailers containing floor-stacked cartons. To facilitate the unloading process, AHS installed a telescoping conveyor that allows dock employees to work their way back into the trailer. The telescoping conveyor also traverses side to side to accommodate five different dock doors.

At this unloading point, cases are put on a powered belt conveyor and are either routed to Sortation or moved into Palletizing for storage.

If goods are to be opened, they proceed through a sortation system which sorts to eight work stations. Cartons are opened and inspected



**ADVANCED  
HANDLING  
SYSTEMS**

THE SYSTEMS INTEGRATORS

in a "Check-Count" area and are logged into the computer for inventory control. AHS supplied all mechanical hardware and motor logic controls for the sortation area.

When non-standard cartons are received, they are diverted to Rebox where goods are removed and placed in standard cartons. Eight sortation lanes are fed from the receiving system in this area. All conveyor sections were supplied by AHS.

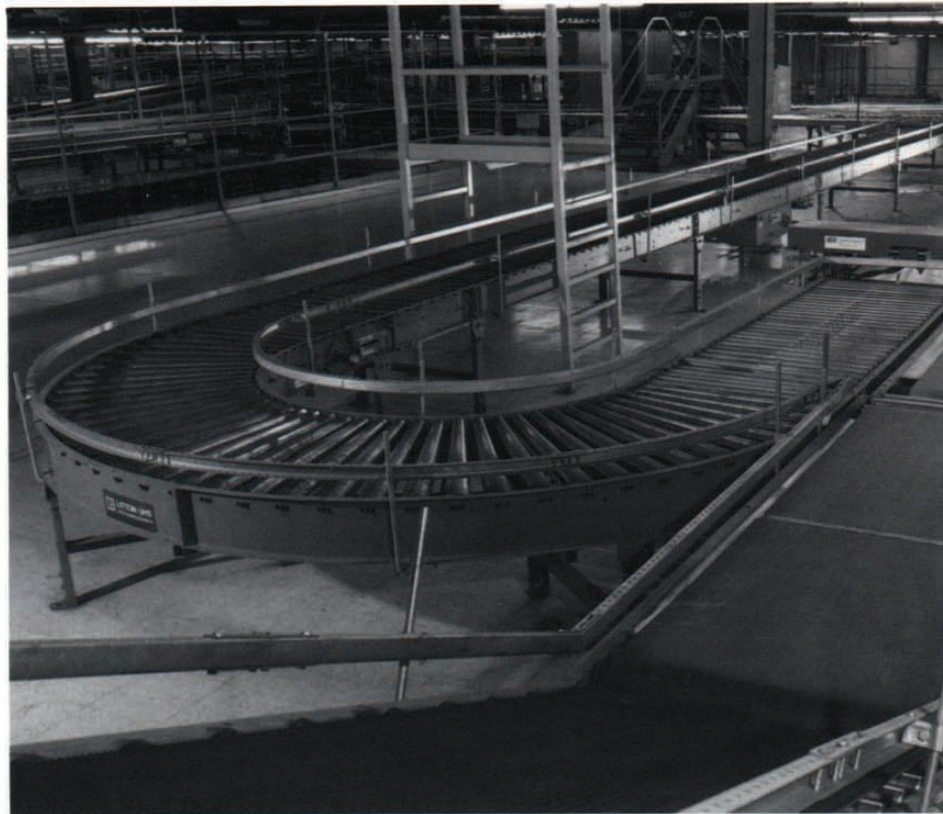
## THE HEART OF THE SYSTEM

Once received goods enter the main induction area, they have already been entered into the host computer for inventory control. At this point, the computer makes the decisions on where to route the goods within the system.

Cartons can be directed to one of three areas in the warehouse. They can be sent to Palletizing, to Order Record Control (ORC), or to PicPac for order picking.

If long-term storage is called for, goods are sorted in 20 high-speed diverting lanes and then palletized. Product directed to palletizing is held in reserve until needed.

If buffer storage is needed for palletizing or PicPac, goods will be sent to ORC. The ORC area has 30 high-speed diverter lanes, plus one recirculating lane. The control unit automatically calls for product from each lane and delivers it into PicPac or to Palletizing.



The sortation area for PicPac is built on a 19 foot, 4 inch high structural mezzanine. On the mezzanine level, 22 high-speed diverter lines deliver product to PicPac. The PicPac area utilizes double-deck powered lines and vertical lifts. Work tables are positioned on both sides of the powered lines. In addition, a static gravity conveyor serpentine through the entire system.

At the initiation of a pick, operators take a carton and place it in front of them on a serpentine conveyor. The operator uses a bar code wand to transmit information to the computer which, in turn, processes the information and gives instructions to all stations involved in the PicPac system. The L.E.D. read-outs at the picking station light up with complete instructions for filling store

orders. A picker then pushes the completed store carton to a take-away conveyor. Once cartons are completed, capped and put on the double-deck lines which feed a trunk line, they are considered "shipped" and go directly to Strapping.

The Strapping system—which is the initial phase of Shipping—is a unique concept developed and refined by both Advanced Handling Systems and The Gap. The system utilizes standard strapping machines and conveyors, but it is integrated into a high-speed custom system. This system throws three straps per carton. Two are thrown perpendicular to one, and the process is accomplished within a matter of seconds. This system has achieved The Gap's goal to increase Strapping throughput by 300%. This system was also featured by *Packaging Digest Magazine* for the throughput achievement and the novel design.

After Strapping, all cartons proceed to shipping for sortation to some 550 stores throughout the eastern U.S.



## AHS. YOUR SINGLE SOURCE FOR MATERIAL HANDLING PRODUCTIVITY

The Gap installation is just one example of the many ways Advanced Handling Systems can improve material handling productivity. As "The Systems Integrators," we can provide the design, engineering and implementation for turnkey automated systems. Or, as in the case of The Gap, we can implement and integrate portions of an existing design.

So whether you need horizontal transportation, overhead handling, AS/RS, sortation, order picking, or a material control system, call on the professionals at Advanced Handling Systems.

We bring modern productivity and bottom line benefits to materials handling operations nationwide.



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