

O.C. Tanner Recognition Company



O.C. Tanner recognizes the value in automating material flow

With 4,000 merchandise award items to choose from including golf clubs, luggage, and TVs, O.C. Tanner Recognition Company offers a selection of awards. O.C. Tanner's Award Distribution Center in Salt Lake City is the culmination of outstanding effort in management oversight, team planning, project management and vendor/customer partnerships.

In the early 1990s the demand for awards increased for O.C. Tanner – as did the requirement for storage space. The company coped by leasing of off-site warehouses until a team of five managers was assigned to build a new warehouse. The team conducted two studies, producing justifications for a conventional warehouse, a narrow-aisle warehouse, and a fully integrated, automated manufacturing and distribution system. The study showed modest, strong and very strong justification, respectively for the three solutions.

Designing the project

The project was designed around a number of automated material handling concepts:

Application Requirements

Consolidate four warehouses while increasing capacity 25-30%, eliminate non-value-added steps in manufacturing and distribution process, improve direct labor productivity 100%, and achieve near 100% inventory accuracy.

Solution

- Has over 1,900 employees
- Two-aisle mini load with 5,060 storage locations
- Two-aisle unit load with 1,438 storage locations
- Conveyor system to transport merchandise from the automated buffers to assembly work cells and from work cells to packing, consolidation and shipping
- Real-Time System (RTS) inventory control software

Customer benefits

- Production up 17% with fewer workers.
- Production per direct labor hour increased 120%
- Order cycle time cut 70%
- Distance material travels from receipt to shipping

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- Receiving incoming pallet loads in an automated storage/retrieval system (AS/RS) and individual cartons in a mini load AS/RS
- Identifying parts and orders with bar coded labels
- Picking orders from pallet loads and containers and conveying items to workstations where emblems are attached or other processes like engraving occur
- Conveying the completed awards to consolidation stations and shipping

The craftsmanship of the merchandise awards process wouldn't change, but the manual material handling and the chasing back and forth to complete orders would be automated. During the information gathering phase of the project pedometers were used to track travel through the facility; it was demonstrated that a worker could walk as much as 5,100 feet to move an order through the manufacturing and shipping processes. With the new system, merchandise would be conveyed to and from the workstations minimizing movement.

Reporting Progress

The vehicle for reporting progress to senior management was a monthly one page report, driven by the project's objectives: complete on budget; complete on time; deliver the promised benefits. One look at the page could tell senior management whether the project was on schedule. According to Vice President of Customer Service David Petersen, the return on investment was based on four years. "Several things went into that ROI," Petersen says. "Cost of the product, for one; we wanted to produce those parts less expensively. A big part of that was the number of people involved in labor intensive processes. We also tried to put some dollars to the speed with which we could produce as opposed to before." A recent report from manufacturing management indicated that return on investment could be achieved in three years rather than the projected four.

ROI wasn't the only expectation of management and the project team. Increases in productivity were

also planned and realized. "Before the Award Distribution Center was built, we had an output of 1,800 awards a day for this process. Today it's 3,000 awards a day out of the same process," Petersen explains. "We also went from 3.5 awards per worker hour to 5.5 awards per worker hour, with 45% fewer people." Cycle time, another area of reduction, was measured in calendar days from order entry through shipment. "Previously cycle time was from six to eight weeks; now, with this new system, as well as other improvements in our manufacturing processes, cycle time is from three to four weeks," notes Vice President of Materials Wayne Carlston.

Still a people business

Worker preparation for the changeover started a year in advance of the system's installation. "We wanted to anticipate as much as possible what the problems would be, and we had the full support of our people. When we implemented, when we transitioned, we invited their feedback," says Petersen. This attitude, coupled with the material handling system and project management, made the Distribution Center a success, Petersen believes. "The equipment worked very well, the performance of the hardware and software – we had bumps and bruises in implementation, you always do – but it did deliver. But every one of nonexempt people who was involved in the process was 100 percent behind it and wanted it to be successful."

