

Hitachi simplifies, cuts shipping time with carousel & warehouse management system

“No guesswork on what the facility does or the savings it provides”

Hitachi, Ltd. is a world leader in the development of advanced materials and technologies. Utilizing extensive knowledge of plasma technologies, ion and electron beam technologies, and environmental systems, Hitachi, Ltd. manufactures high quality equipment for use in semiconductor device manufacturing facilities.

From its North American Headquarters in Dallas Texas, the Hitachi America, Ltd. Semiconductor Equipment Group (SEG) distributes replacement parts to customers throughout the United States, Ireland and the Middle East.

Growth in semiconductor equipment sales and the introduction of new product lines combined to strain the

company's existing distribution facility. With increasing inventory, new product lines to support, and accelerating throughput requirements, Senior Operations Manager Tony Ficken knew he needed to improve his distribution operations.



The impact

Because of increasing demand for services, Ficken knew he needed to transform the way his distribution facility operated from the ground up. Hitachi America, Ltd. SEG determined



that a new larger distribution center was required to keep pace with future demand. The company also realized that in addition to more space, it needed to improve distribution processes efficiency and increase control over the operation.

“I realized that the system and equipment in the old facility wouldn't work in the new warehouse,” Ficken said.

The desired solution

“We dance a fine line of supply and demand,” Ficken said. Because of the demanding nature of its business, the company needs to maintain near-perfect accuracy levels. Hitachi America, Ltd. SEG puts a premium on accuracy.

The new distribution center had to

be more efficient than Hitachi America, LTD's previous facility. With an increasing demand for its services and a need to minimize the number of people involved in shipping an order, Hitachi America, Ltd. needed the new operations to do more in less time, with less effort and fewer people.

Another goal of Ficken's was to remove the manual process to handling inventory orders.

“I want to remove as much “touching” of the order as possible, said Ficken. “I don't want inventory touched if it doesn't have to be touched.”

Hitachi needed increased security in the new facility. Access to inventory had to be limited and that meant a solution that automated manual processes.



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The company wanted its warehouse operations to be more flexible. It needed to centralize inventories and have the capacity to grow on demand. The old facility limited Hitachi America, Ltd.'s ability to service new markets and models. Its new facility needed to be responsive to those needs.

Solution implemented

Cisco-Eagle's Consulting Services Group, CEI Logistics, stepped in to help Hitachi America, Ltd. define its processes and evaluate a number of alternative operating concepts for the new warehouse.

“CEI's Consulting Engineers assessed our current processes, studied our current and future operating requirements and developed alternative operating concepts. He spelled out the costs and benefits of each one,” said Ficken.

“We got the information we wanted up front,” Ficken said. “There was no guesswork on what the new facility would do, how it would operate, or the savings it would provide, because the Consulting Services report spelled everything out in advance.”

Once the consulting studies were finished, Ficken received a detailed analysis

of his operation and how future growth would impact it.

The solution Hitachi America, Ltd. SEG chose to implement involved a combination of Horizontal Carousels, Static Storage Racks, and Bin Shelving. Fast

and medium velocity parts are batch picked from the horizontal carousels. Light-directed picking at the carousels ensures high order accuracy. Slow moving parts are picked from bin shelving while large crated items are picked from rack using forklifts. TrackStar Warehouse Management Software along with RF technology was implemented and interfaced with the existing SAP system to provide greater control over the distribution operation.

The Results

Hitachi maintains the highest standards of accuracy and the new material handling system helps them do it.

“We minimized the number of touches in this system,” Ficken said. The software and carousel system has combined to enhance the company's order picking and inventory accuracy.

“The carousel keeps warehouse guys from having to move around,” Hitachi Inventory Control Assistant Manager Jim Brockman said. “It reduces his steps and he doesn't get as tired.” Consequently, the number of errors has been reduced.

The new facility is cleaner and more

organized. “We have a cleaner look. You can see that everything has a place,” noted Ficken.

Picking time has dramatically improved. The older facility could pick a maximum of 40 orders a day. The new system has exceeded 130 orders in a single day, according to Warehouse Supervisor Dale Norcross.

“I've noticed that the picking time has been drastically reduced,” said Jim Brockman, Hitachi Assistant Manager of Customer Service and Inventory Control. “Some orders took a day and a half. Now, those same kinds of orders take less than a day. When you've got two men on it, that's eight hours of time saved on just one of our regular orders.”

The new system has given Hitachi America, Ltd. SEG more control of its operations than ever before.

“We're not concerned with what the business is going to throw at us, because we can expand very easily,” Ficken said. “Our future is in our hands now.”



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