



WERC Certification Awarded to Invacare Corporation's Dallas DC

Invacare Corporation's Dallas, Texas, distribution center, a 70,000 square foot facility serving the south and central regions of the U.S., has been named a WERC Certified Warehouse.

The designation from the Warehousing Education and Research Council, the professional association exclusively focused on warehouse management and its role in the supply chain, certifies a warehouse facility's capabilities and its ability to competently perform core warehousing functions.

To conduct the certification audit, an independent third-party auditor inspected the distribution center and conducted a process assessment, while benchmarking and grading the warehouse operations against recognized industry best practice standards.

These standards are contained in WERC's *Warehousing & Fulfillment Process & Best Practices Guide* that outlines the five levels of warehouse process competencies (ranging from "poor" to "best practice") for the eight common warehouse processes (receiving and inspection, material handling, slotting, storage and inventory control, warehouse management systems, shipping documentation, picking and packing, and load consolidation and shipping).

Invacare Corporation (IVC), headquartered in Elyria, Ohio, is a global leader in the manufacture and distribution of innovative home and long-term care medical products that promote recovery and active lifestyles. The Dallas IVC DC has 13 employees, 11 docks and operates under Oracle EBS and WMS systems. Inventory accuracy is 99.9 %, pick accuracy is also 99.9 %, and same-day on-time ship is 99.5 %. Dock-to-stock is less than six hours, and the facility stores a total of 750 SKUs.

"After an extensive three year continuous improvement initiative during which we methodically reviewed every aspect of our operation and introduced many significant changes throughout our facility, we saw that our service levels went way up, our costs came way down, and our core customer complaints dropped by 98 percent in one year," shared David Zuern, vice president, North America Logistics.

"Nevertheless, while we made some incredible improvements in a very short period of time, we still needed to validate our progress and to determine how we stacked up against a measureable process scale, which the WERC certification audit provides," he explained. "The comprehensive analysis that the certification brings provides a clear auditable means to assess current and future states as well as design projects for improvement in the future."

Major multi-year improvement effort pays off

"Our business is all about service," Zuern maintains. "Our customers don't want to hold inventory, and it's basically a next day business. If they order by 3 PM, we can pick and pack the order and in over 95% of the cases have it delivered the next day. That's the demand pattern we're looking at," he explains.

Zuern, when he arrived at Invacare in 2007, and his new distribution and logistics team embarked on a massive improvement program throughout all five Invacare DCs with the objective to boost on-time shipments from 82% to 99%, to move out-of-territory from 33% to 3%, and to eliminate almost \$14-million of excess inventory, among other challenging targets. "We went through every process in the DC very methodically: how do we receive; how do we stock; how do we pick; how do we cycle count; and so on," he explained. "We modified our warehouses to make them more efficient, we did a lot of slotting work, and we installed a gain sharing program to get buy-in from the employees."

Zuern continues: "We introduced many best practices, brought in several innovative transportation management practices and instituted some good, basic distribution management practices, and replaced the existing WMS in 2009. We deployed a demand planning program, and put in a new slate of KPIs and metrics in all of the DCs and our headquarters logistics organization, and believe that we are now focusing on all of the right things."

Audit confirms progress

The Invacare team did not make any special preparations prior to the audit. According to Zuern, “After nearly three years of continuous improvements in all of the Invacare DCs, we wanted a clear, clean look at the DC’s processes and gaps.”

The biggest revelation to him and his team was that “we stacked up pretty well against the audit. The audit also showed several areas for improvement and we have begun to address those with projects and investments.”

One area he mentions is slotting. “Our business is not seasonal and we

do have some churn of SKUs, but we never really looked at re-slotting on a regular basis,” he shared. “After the audit we discovered that we were missing out on some big space savings and better arrangement of SKUs if we re-slotted regularly.”

As a result, they have internally developed several analytic tools and internal reports, and once a quarter at a meeting of the DC managers they are presented with a list of something akin to the “50 things you can do to better slot the warehouse and to improve your productivity.” The individual DC managers can then decide whether to adopt or not, and which ideas to include or exclude.

Additionally, Zuern notes that DC employees frequently make suggestions as to the location of products that should be moved either to the front or back of the pick area to better improve their performance and productivity. As an aside, he adds that the gain sharing has “really brought a lot of buy-in and participation from all of our employ-

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Based on the auditor’s report there also are a number of projects that are being considered for the long-term. One is directed putaway. “We have this capability but had never used the functionality due to some prior concerns about space utilization,” he explains. “While we do not use it today it will figure in future process upgrades to all of our DC inbound processes.”

Zuern also did acknowledge that they are making several systems adjustments and modifications in their WMS to accomplish a move to the next level. “We are looking to upgrade to the next version of Oracle WMS in the near future to take advantage of certain features that are more in line with best practice processes.”

Continuous improvement culture

Zuern insists: “We’re a continuous improvement organization, and what we have today is going to do nothing but get better tomorrow. As an example, the certification is a point in time, a look at what we’re doing now. Therefore, everyday we’re looking at all of those processes and asking: are they efficient and effective, and what must we do to make them even better.”

Because continuous improvement at Invacare is a culture, he maintains, “It really doesn’t need a push or pull, it just needs to be managed to make

sure that everybody is participating and that we have a full bucket of ideas.” “Our metrics reflect what we’re doing and provide us with a direction to see where we’re going.”

Commonality exploited

Invacare’s DCs have a high degree of commonality: the systems are all much the same, and the processes are very similar, if not identical, and the metrics are common to all.

“There are some nuances specific to each facility, but for the most part what you see happening in Dallas is also happening at our other four distribution centers,” he explains. “We referenced WERC’s *Warehousing & Fulfillment Process & Best Practices Guide* after we decided to seek certification and used it as a kind of a self-audit before we undertook the actual WERC certification audit in Dallas.”

The *Guide* has since been distributed to all of Inva-care’s DC managers to use as a reference for making other facilities/operations improvements as well. “We continue to use the best practices guide because as we take in new business and as our business model changes a little bit here and there, we reference it and say, ‘this is probably what we should be doing or here is where we need to get to in the long term.’”

Best practices are routinely shared among the DC managers. “We hold many meetings and do a lot of communicating among our DC management team sharing metrics and practices,” Zuern explains. The metrics are routinely monitored and if a specific facility’s performance scores high or low, a team is assigned to the location to review the affected process to determine the cause of the variation.

“We try to determine how the specific process varies from the others, and we go through a modified Kaizen activity to deconstruct the process and to then re-construct it to make sure that everything is going the way it should be going,” Zuern explains. They also have a modified Lean process in place, and the program is simply called “Process Improvement.”

Satisfaction

Zuern and his team and DC associates are pleased and proud of receiving their certification recognition. “All of this hard work that we’ve done over the past few years, we know that we’ve gotten better,” he explains. “But it’s rewarding and gives us a sense of satisfaction to know that a credible outside source and authority like WERC also recognizes what we’ve accomplished.”

Inva-care’s customers also have noticed the improvement in service. “While we weren’t at the top in our industry in terms of service and fill rates a few years ago, I would venture to say that we’re the best today,” Zuern claims. One indication is the significant fall off in customer complaints cited previously.

Internally the WERC certification has brought recognition that the DC is well run. “While there has not been a hard dollar savings associated with the certification audit, it has served to validate much of the hard work that has taken place over the past few years to significantly improve the performance of the DC network and the Dallas DC in particular,” states Zuern. “The audit also has helped us to devise a roadmap to go forward and to get to the

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next round of improvements.”