

Customer Profile

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A manufacturer of distribution transformers was not getting results from its manual kanban system. By implementing Datacraft Solutions' demand driven supply chain solution, the company cut inventories, reduced lead times, and improved ERP transaction accuracy.



Power Partners, Inc. is the thirteen largest U.S. firm in the Women's Business Enterprise National Council (WBENC), and manufactures poletype distribution transformers that provide more than three thousand utilities in North America, and Central America with electric power for homes and businesses. Power Partners' poletype distribution transformers are specifically designed to serve residential overhead distribution loads. They are also suitable for light commercial loads, industrial lighting, and diversified power applications. Power Partners provides a complete line of overhead transformers to meet the applications of any distribution system.

The Power Partners operation in Athens, Georgia, has achieved ISO 9001: 2000 certification. The operation, which was an ABB facility until Power Partners purchased it in May 2003, has nearly 50 years of manufacturing experience.

Several unsuccessful attempts at lean manufacturing and Vendor Managed Inventory led to excess raw material and WIP. The problems were compounded by inaccurate data in the ERP system and the inability to locate material within the plant. In an effort to address these problems, Power Partners developed a card-based kanban system to signal material replacement actions for many of their materials. Ben Ehmcke, director of supply chain, explained:

"We started out trying visual systems, such as a simple two-bin system, that could be managed by the material handler. This system involved marking off an area in receiving where wire baskets or boxes of material could be stored. The material handler on day shift was given a preprinted sheet for that supplier. He would take the sheet and place an 'X' in each box to show the inventory on hand, and then fax it to the supplier. The material would then be delivered at a predetermined time.

"The next step was to put up kanban boards for several commodities. As material was received, a recyclable card was placed on each standard package quantity. When material was moved from the staging area to WIP, the material handler removed the card and replaced it on the visual board. The board would also show what was on order and when it was received."

Even though the manual kanban system was well documented, it had two fatal flaws. First, the company considered material handling as an entry-level position, and anyone who excelled at it was soon moved to a more skilled position. "It was difficult to maintain the system when there was a constant change of personnel and training was minimal," said Ehmcke.

Second, there were just too many people handling the material. "We were astounded to find out there were up to 38 different people from just one department that touched the material," said Ehmcke.

Find a Solution

Power Partners needed to find a system where the material handler could perform the basic job function, and still get the information into the ERP system and to the supplier.

"Our objective was to have a system based on actual usage versus the information from an ERP system," said Ehmcke. "Previously, I had been involved in developing true kanban systems that allowed us to turn off the ERP system for procurement decisions. I was looking for software that would be compatible with our ERP software, and give us the flexibility and functionality that I had experienced with other systems."

Build or Buy?

Power Partners did not have the resources to develop a demand driven supply chain solution internally, but the company's owners had a business associate that wanted to develop a system for small to medium-sized companies.

"They had the resources to write the software, but had no knowledge of kanban or lean," said Ehmcke. "After several months of working together, it became evident that the project would take much longer than we wanted, and was much more complicated than the business associate anticipated. Our IT/IS manager and I started looking for software solutions that could be integrated with our ERP system, and grow with us."

"Sherrie Ford, our chairman of the board, met representatives from Datacraft Solutions at an AME conference. We then started a year long evaluation of Datacraft Solutions' Signum Demand Driven Supply Chain system."

At the end of the evaluation, Power Partners selected Datacraft Solutions' Signum. Ehmcke explained the rationale:

"Datacraft Solutions had most of the features that we looked for in a system. Signum was user friendly to both the buyer and to the supplier. It enabled us to put in place an electronic communication back to our supplier, and at the same time was transparent to shop floor personnel. Also, Datacraft Solutions provided a team on site that developed the interface to our ERP system, and trained both Power Partners personnel and our suppliers."

Benefits

Ehmcke was confident that with a demand driven supply chain system, Power Partners would realize immediate benefits by reducing inventory and cutting supplier lead time.

"We knew that with this type of system we could reduce our on-hand inventories, and by offering our suppliers consistency we would reduce our supplier lead time. Within the first three months, we cut the inventory levels of the first two suppliers in half, and reduced lead times from four weeks to ten calendar days. Subsequently, we have achieved similar results with the other suppliers. In addition, because Signum is interfaced with our ERP system, we have improved our transaction accuracy."

Positive Supplier Feedback

As Power Partners included other suppliers, the feedback was very positive.

"We started out with three of our key suppliers and during the last year we have added five others," said Ehmcke. "By the end of the project we expect to have all our suppliers using Signum. Our suppliers told us that this is the easiest system they have ever used, and that the flow of information is far greater than they've received from any of their other customers. They told us that Power Partners is way ahead of our competitors as far as ease of doing business."

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