

Operations Consulting Service

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Building Customer Loyalty through Lean Thinking and KANBAN

Company Profile:

Triplett Machine Company (TMC), located in Phelps, NY, is a recognized leader in producing high quality, precision-machined components for over 15 years. Triplett's multi-talented team are experts in: CNC machining; turning and milling; assembly; lean manufacturing of prototypes to long run machined parts. They are committed to quality, on-time delivery, lean manufacturing and quick turn around service. Triplett Machine Company, ITT Goulds Water Technology North America and **Operations Consulting Service (OCS)** a lean enterprise consulting company partnered for the project.

Situation:

Triplett Machine Company and ITT Gould, Water Technology North America (WTNA), Auburn Facility have partnered on supplying precision-machined parts. Triplett requested to take this partnership to the optimum, establishing a KANBAN system on part number B11422, Shaft Sleeve. In the past, WTNA would issue an individual purchase order for this part. In some cases, expedited shipments would be required to meet demand or stock outs. Utilizing **Operations Consulting Service (OCS)**, experts in Lean Enterprise solutions and Supply Chain KANBAN methods a successful KANBAN was established to bond this relationship.



Jeff (TMC), inspecting and packing KANBAN bin. No looking for packing material, precision parts protected and the empty bins trigger the next production run.

The process utilized to establish the KANBAN was:

1. Approaching WTNA on the desire to establish a KANBAN between the two companies.
2. Thoroughly understanding how the parts are produced, received, accepted and used (mapping the entire value stream for both companies). This is essential in eliminating operational waste in both WTNA and TMC. It also flows value from TMC suppliers into WTNA operation out to their customers.



Steve (WTNA) retrieving KANBAN bin from WTNA inventory location. "This is absolutely great. I never had a vendor and consulting firm ask me before how I use the parts and then to deliver them, the way I need them."

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- Determining the KANBAN signal. Trigger point of one reusable bin of 50 shaft sleeves.
- Establish the inventory location and replenishment trigger points. Location for the replenished KANBAN system at WTNA was established.
- Design, fabricate and label the bins. (
- Document the responsibilities of both companies in an approved ISO 9002 work instruction.
- Issuing a blanket purchase order, with KANBAN replenishment.
- Produce the Kanban inventory..
- IMPLEMENT the KANBAN system. NOW.

Results:

The results of implementing a KANBAN system are numerous. Some include:

- Reduced inventory levels. Two months of inventory to less than two weeks. (Picture WTNA)
- Improved communications between the companies. Partnership is formed between the companies to work on additional KANBAN systems. TMC became more than a supplier instead it was an extension of WTNA's factory..



Jeff (WTNA) brings bin to the assembly area for kit assembly. Before the parts were packed 300 to a box. He would walk over 40 feet to bring ten parts at a time to his work area..

- Eliminated operational waste in both companies. KANBAN system reduced

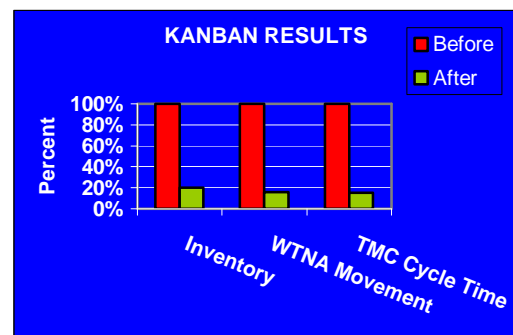
wasted motion and movement in the kit assembly area at WTNA

- Helped save the environment utilizing recyclable containers. No longer disposing of the corrugated packaging material to our landfills.
- Improved the quality and reliability of the parts and replenishment system. Bin system protects, counts and provides easy method to store audited parts.



KANBAN container were designed to protect the parts, utilizing 1.6 pound foam, count the parts automatically, weight less than 25 pounds for ease of lifting, trigger replenishment and even identify inspection data parts (red area in photo).

- Ergonomically designed container to reduce assembler fatigue by decreasing the size and weight required to be lifted and carried.
- Consistent part replenishment. WTNA is replenished on Tuesday and Thursday of each week. Empty bins picked up on Tuesday are replaced on Thursday. TMC is now able to produce a two week quantity, freeing up their technology centers to satisfy and deliver value to other customers.



Build loyal customer relations and sales by delivering VALUE not just parts.