

RESULTS

COMPANY PROFILE

RBC Bearings Incorporated is an international manufacturer and marketer of highly engineered precision bearings and components. Founded in 1919, the company is primarily focused on producing highly technical or regulated bearing products requiring sophisticated design, testing, and manufacturing capabilities for diversified industrial, aerospace and defense customers, such as Boeing and Airbus. Headquartered in Oxford, Connecticut, RBC Bearings currently employs approximately 2,030 people worldwide, and operates 20 manufacturing facilities in four countries.

SITUATION

The RBC Aircraft Products Inc, (API) a wholly owned subsidiary of RBC Bearings Incorporated, located in Torrington, CT, manufactures flight control bearings for airframe original equipment manufacturers (OEMs), such as Boeing and Airbus. An internal assessment of future growth opportunities indicated the need to implement Lean Manufacturing methodologies in order to reduce product lead time, meet competitive pressures, and a strong market demand for high-quality bearings at the lowest possible cost.

Additionally, RBC-API suffered from supply chain problems, high inventory levels and capacity constraints, partially caused by the multi-story factory site they were occupying – formerly owned by Timken Bearing Company.

Realizing that product lead times in excess of 24 weeks and large batch processing were impediments to their strategic business growth plan, RBC looked externally and sought assistance from CONNSTEP, Inc.

SOLUTION

In the fall of 2006, API sent two employees to CONNSTEP's Continuous Improvement Champion Certification Program (CICC), the eleven-week training course, to bolster their internal Lean Manufacturing abilities. Upon completion of the course, which includes a real-time, on-site project

RBC Aircraft Parts, Inc.
Torrington, Connecticut
100 employees
www.rbcbearings.com

Lean Solutions

- 30% reduction in inventory
- 50% reduction in lead time
- 54% reduction in distance traveled



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guided by a CONNSTEP Lean Manufacturing Specialist, the management team determined that the current facility was not adequate for future growth plans and further assistance would be required for the division to successfully implement Lean Manufacturing at the new Torrington plant. They again turned to CONNSTEP.

After consulting with RBC-API management, CONNSTEP proposed a seven month project plan, divided into four phases: the first three prior to the move to the new facility with the fourth phase to begin once the move has occurred. Phase one trained leadership and all employees on Lean Manufacturing principles, establishing a common understanding across the organization and laying the foundation for all future Lean initiatives. The second phase trained all employees on the Value Stream Mapping (VSM) tool followed by the creation of current and future state value stream maps for all three product lines. These VSMs enabled the steering team to develop a list of prioritized training and implementation events to begin in phase three.

Phase three included the implementation of standardized work practices, automated Kanban/Pull systems (supermarkets), machine set-up reduction methods, 6S work place organization practices, and product quality improvement through 6s techniques to raise production first pass yields.

Once the move to the new facility is completed in January of 2008, CONNSTEP will initiate phase four with an assessment of the processes established in phase three, quantifying the anticipated metrics. CONNSTEP will guide RBC-API through three additional kaizen events with the new focus on inventory reduction and the operations of the newly installed parts buffers.

RESULTS

A final assessment is scheduled at the close of phase four, however, the first three phases have RBC-API on track with their projected results including cost savings from inventory reduction of 30% and lead time, originally at 24 to 26 weeks to be reduced to 12 weeks, a 50% reduction. The new Lean shop floor layout has reduced the distance parts and people travel from 2400 feet to less than 1100 feet, an impressive 54% reduction.

“CONNSTEP was selected from many consultants for their previous experience with aerospace companies and their practical approach to implement Lean. The implementation process was not one of just looking to achieve short-term results, but more so to prepare the people at RBC-API to be able to carry on our Lean journey after CONNSTEP completed their assignment.

With the skills and confidence imparted on the people, RBC-API looks forward to continue building on some already impressive results.”

Bob Hart
Plant Manager
RBC Aircraft Parts, Inc.

