What does a Warehouse Kaizen have to do with war veterans? Improving the Flow of Material at BiOM

A GBMP Client Case Study

Through 2013 more than 1500 U.S. troops suffered major limb amputations as a result of the wars in Iraq and Afghanistan. Thanks to BiOM, a Bedford, MA based company, a great many of those wounded veterans are now walking a whole lot easier. Privately held BiOM produces personal bionic propulsion technology, and thanks to its BiOM bionic ankle many veterans can now comfortably enjoy basic activities such as walking, running, bowling, golfing, dancing and hiking.

Founded in 2007 by Dr. Hugh Herr, Director and Principal Investigator of the Biomechatronics Group of MIT's Media Laboratory, the BiOM development team spent significant time studying how people move, and then embedded that intelligence into a bionic ankle that is programmed to respond like a real ankle. BiOM's product operates with the help of sophisticated microprocessors and sensors, putting the company on the cutting-edge of prosthetic innovation — a huge leap forward in technology.

So what does all that have to do with a Warehouse Kaizen? Using funding from a Massachusetts Workforce Training Fund grant, GBMP has been helping BiOM learn and apply lean principles and tools in order to match their cutting edge products with world-class production processes. They are leveraging lean to ensure quality, control costs, and improve delivery and customer satisfaction. New ways of thinking about how to make employee work easier and better, and how best to make material and information flow are at the heart of this thinking.

In June 2014 BiOM held a warehouse kaizen event in order to improve the flow of material through receiving, incoming inspection, warehousing and shipping. Facilitated by Dave Wesche, GBMP Continuous Improvement Manager, a cross-functional team of employees evaluated the current material handling activities and brainstormed ways to improve storage locations, reduce travel required to perform jobs, and discussed ways to facilitate FIFO material usage.

In the receiving and inspection areas, the team changed the process flow and layout to minimize movement of inventory and ensure incoming parts continue on to inspection quickly, while at the same time reducing the footprint of the inventory staging area. Their efforts will mean less waiting for inbound parts and a physical flow that is much more compact and rational for workers.

In the warehouse area the 'before' condition consisted of random/multiple part locations spread across two rooms, making it time consuming and difficult for employees to locate things. The team consolidated items, and labeled and arranged parts numerically to allow for easier picking. The area now also has better segregation between raw materials and finished goods.

In the ‘before’ shipping area the shipper was traveling more than 269 feet to make a typical shipment. Now the BiOM shipping department consists of a well-organized shipping cell that includes all items needed to complete a shipment. The shipper now walks about 80 feet to complete a typical shipment.

“The changes made by this team have put us in a better position to handle more receipts and shipments as our business grows,” said Director of Operations, Adrienne Melick. “They really thought about how work was being done and came up with simple, quick changes that make for a better day for our employees and improves flow of materials from receipt to shipment.”

Dave Wesche also commented on the work from this BiOM team; “You can see the before and after warehouse travel paths in the diagrams below - quite a difference to be sure. The new method reflects the thinking that all employees deserve a great process to operate within, one that is free of wasteful activities and shows respect for the people who do the work. Great products, great people and great processes are a winning combination.”

Before

After

For more information about BiOM please visit http://www.biom.com
To view a video about a BiOM product user experience please visit: http://youtu.be/17BJftIepEg

BiOM Personal Bionics

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