

Lean transformation resuscitates medical device company's bottom line.

Client:

A manufacturer of medical devices including pacemakers and testing devices used for drug testing, clinical diagnostics, genetic analysis, and more.

Challenge:

The client needed help to lean their operation while increasing throughput and reducing inventories. They freely admitted that its manufacturing system was “less than satisfactory”, driving unacceptably high costs, higher-than-necessary levels of component inventory, and risks of finished product obsolescence.

Process:

As we began our engagement, a healthy dose of skepticism greeted the team. Many of the client's employees had heard all about “that value-added and non-value-added stuff” and didn't believe it really mattered all that much. To counter this and begin winning them over, our team conducted a two-day Lean simulation exercise that illustrated the nature and benefits of being Lean.

Next, using our proprietary, integrated Lean process design solution, LeanView™, we helped the client to map its critical processes resulting in several value-stream maps being produced:

- 1) An end-to-end map of the entire enterprise viewed at a high level.
- 2) A current state maps for each of the four processes that led to final assembly.
- 3) Process task maps to identify inherent wastes in each process within a value stream.
- 4) A future state map that depicted where the client needed to go at this time.

Once the value-stream maps were completed, we helped the client to begin the early stages of a Lean transformation. Lean principals were first taught and then reinforced company-wide through a blended learning system that was customized to fit the clients' business model.

Over a six-week period the manufacturing floor was converted from a batch assembly operation to a sequenced pull operation, and Kanban and the 5Ss helped to open up floor space for production and assembly.

Performance Results:

- 23% increase in throughput, due to revised testing procedures.
- 66% increase in pacemaker throughput.
- 22% decrease in total inventory dollars.
- 25% more space in the production.
- 30% more space in the assembly areas.

Conclusion:

After this initial transformation, throughput in the pacemaker operation increased 66%, rack space requirements were reduced by 25%, reconfiguration of the assembly areas opened up 30% more floor space and inventory investment decreased 22%.

However, this marked only the beginning of the Lean journey for the client. A five-year plan was developed to extend Lean principals into other manufacturing areas and, ultimately, throughout the company. A quarterly review by our team and the client's executive management group a Lean audit mechanism has been put into place to ensure that progress continues and that the ultimate destination - a Lean enterprise-wide system - remains in plain sight.

When asked how he felt about the consulting dollars they'd invested to-date the company's Vice President and CFO quickly summed it up by saying, "These improvements had a very positive impact on the bottom line of the company."