

Medical device company boosts productivity.

Client:

A medical technology company successful in manufacturing sophisticated scientific instruments and processing complex chemical reagents

Challenge:

Although successful, the company's management team felt the need to strengthen its competitive position in the marketplace. Specifically, they hoped to achieve significant short-term improvements in employee involvement, productivity, cycle time and production cost. They also hoped to introduce a cohesive management operating system based on lean management techniques and to drive long-term continuous improvement.

Process:

Using our strong credentials in lean management, time phased scheduling and Six Sigma, the USC Consulting team identified key areas for improvement. We began by working with the client's management team to pinpoint areas in the reagent and instrument production processes that would yield high-value performance improvements. After a series of diagnostic studies, we decided to focus on six key areas:

1. Streamline the manufacturing process by implementing Single Piece Flow
2. Reduce inventory
3. Improve process control in manufacturing and move toward achieving zero defects
4. Increase the use of visible, near-real-time measurements
5. Improve the scheduling and coordination of resources to reduce production delays
6. Reduce manufacturing cycle times

To involve the client's employees in the improvement process, we began with an Associate Involvement Prototype, designed as a Kaizen laboratory. This helped us quickly implement changes.

Working with the client, we also developed a high level business process map that covered activities ranging from sales and operations planning, to production and delivery to the customer. Together, we fostered the evolution of the management operating system. To enhance employees' skill sets, we instituted a documented management process.

Another essential component of the project was to design disciplined progress evaluations to ensure that tangible improvements were materialized. To track progress in the upgraded operating system, we used an implementation timetable for key elements like capacity planning and closed loop problem solving.

Performance Results:

- 33% reduction in instrument manufacturing cycle time
- 32% increase in instrument manufacturing productivity
- 20% improvement in reagent processing productivity
- 12% improvement in reagent processing schedule attainment
- \$1.35 million of annualized savings

Conclusion:

The key performance indicators noted above were achieved in a mere 22 weeks. As a result of USC Consulting's work, the majority of the existing processes in both the reagent and instrument manufacturing groups were either enhanced or fundamentally changed. Most important, the company realized \$1.35 million of annualized savings.

"The coordination of equipment, resources and effort in each department has dramatically improved. With the new operating system in place, we will be able to continue to improve our product, our service and the contributions of our associates," said the company's vice president for manufacturing operations.