



## Lean manufacturing, 6S program are indispensable tools for Beneteau USA



There's an old saying: "If you ever visit an airplane hangar, and it's a mess, you shouldn't board that plane." Those are wise words, says Wayne Burdick (left), president of Beneteau USA, the advice no different for boats.

Burdick should know. Beneteau USA -- the American division of the world's largest sailboat manufacturer for models 30 feet

and larger -- makes its home in Marion, S.C. Steeped in tradition, shipbuilder Benjamin Beneteau founded the Beneteau boatyard in Croix de Vie, France. Now his name lives on, the company a global leader in the luxury durables market, and active in 30 countries through a network of more than 1,500 dealers, agents and sales outlets.

Beneteau is unwavering in its commitment to producing "world-class floating dreams," the craftsmanship and performance of its sailboats geared toward singular purpose. "Our whole driving force is bringing the best value to customers," Burdick said.

As such, Lean manufacturing remains an essential tool to the company's philosophy, as do value-stream mapping and Six S (6S), both extensions of the Lean program.

SCMEP -- a vital resource to South Carolina businesses -- helped introduce and train Beneteau in the concepts of Lean manufacturing in order to reduce waste, and enhance quality, cost and delivery. "We want to build world-class boats in Marion, S.C., and SCMEP -- with their focus -- is able to bring us those world-class programs to allow us to compete at that level," Burdick said.

### Tackling the Issues

Prior to the launch of value-stream mapping and 6S, SCMEP worked with Beneteau management and associates to identify the challenges ahead. A few of the concerns included:

- Reducing work flow
- Reducing clutter
- Reducing inventory and excess
- Boosting performance

At the time, Beneteau used eight separate work flows, a time-consuming process that created surplus. "We were building alike boats with separate models," said Gerard Martineau, Beneteau USA's Vice President of Manufacturing. "So if we had eight models at any point of time in production, they were going through eight different flows."

The untidiness -- the molds or hulls splayed throughout the plant -- could lead to confusion or disorder. At the same time, it sapped resources and capital. "There were a lot of places where it didn't look like an industrial management facility. There wasn't proper structure or organization," Burdick said.

The 6S program proved to be the perfect solution, continuing a Lean journey begun roughly five years ago with the aid of SCMEP. "We were very set in our ways, but progressively we started to understand it could be done differently," Martineau said. "But we had to think differently." Adds Burdick: "Today, there is a structure, an organization."



## The 6S Program

Six S emphasizes cleanliness, organization and arrangement to bring about greater productivity, safety and quality. It's a visually-oriented system, fostering greater responsibility on the job to achieve better work, better products and better morale.

The six phases of the program:

- *Sorting*: Evaluating all tools and materials in the plant or work area and keeping only the essentials.
- *Set in Order*: Arranging the tools in a way that promotes work flow to maximize efficiency.
- *Sweeping or Shining*: Keeping the workplace tidy, each item or tool returned to its place to encourage cleanliness and order.
- *Standardizing*: Establishing consistent work practices to eliminate uncertainty regarding specific job responsibilities.
- *Sustaining the Discipline*: Achieving a revolution in culture, and a new way of working.
- *Safety*: Creating a safe working environment and decreasing workplace hazards.

Change is not driven from the top down, either, but rather by associates -- the workers on the floor -- to create a framework of participation and belief. It grants them ownership, as SCMEP facilitators and Beneteau management interview workers to best gauge process improvements.

"(6S) was the catalyst for the transformation we see today within this plant," Burdick said. "That was a very remarkable turnaround."

### Benefits Realized

Beneteau and SCMEP quickly sized up plant operation with the 6S program, identifying areas in need of attention and improvement. Again, Beneteau's associates helped outline concerns and solutions. "If you communicate, if you are inclusive, and if you truly understand that the biggest value to any organization is the people," Burdick said, "then they'll have amazing answers for the problems you face."

The results were dramatic and positive. For starters, the plant and production line looked better, smoother -- a neat, clean environment adding much-needed order to the workplace. Beneteau USA also employed several waste-cutting strategies.

Formerly, the company used wood imported from France for its sailboats, requiring 12 to 16 weeks of lead time. It often produced glut, or more wood than required. Using 6S, Beneteau keyed in on the time lag, buying a computer numerical controlled (CNC) machine to cut the wood on site. Though expensive, the machine has drastically slashed lead time by one-third. "That's tremendous," Martineau said.

Another segment involved the manual cutting of fiberglass, which is inserted into boat hulls and decks. Once more, the process generated a considerable lead time and excessive inventory. Beneteau ended up with unused materials -- money wasted -- because the manual method meant slicing stacks of fiberglass at the same time. Beneteau bought another CNC machine to expedite the process. Now, every fiberglass roll is marked for referencing and cut by machine.

***Following the 6S guidelines, everything has its place, and -- incredibly -- lead time has been shaved from ten weeks to one week.***



Beneteau also acted to specialize its work stations, equipping the stations much differently to lessen the production cycle. The company developed standards of procedure for every operation performed, benefiting the assembly staff as well. Before, production staff learned many separate jobs: engine construction, hull construction, electrical work, for example. Now, they're specialists, needing to learn only four hours of work, or one specific job. The easily repeatable tasks greatly shrink error. "This should greatly improve quality and consistency," Martineau said.

The biggest benefit: The measures have allowed Beneteau to reduce production flows from eight to three. And soon, Beneteau expects to have a single cycle, meaning quicker production. "Where before we had to buy eight sets of equipment for eight flows, now it's going to be one piece of equipment for that particular flow," Martineau said. Essentially, the system allows Beneteau to be proactive and flexible to the market in a short period of time.

***"It means building the right boat, which has a customer at the end, in the shortest period of time," Martineau said.***

### Today's Tough Economy

But make no mistake, the luxury durables market has been hit hard by the recession. "The whole of luxury durables have never seen such a precipitous drop in my lifetime," Burdick conceded.

In June, Genmar- previously the second largest boat builder in the world concentrating solely on power boats- filed for bankruptcy protection. Unique challenges still remain for Beneteau USA, but with SCMEP and Lean manufacturing tools, "I think (our company) is able to stay well ahead of our competitors, some of which are not in such a good way," Burdick admitted.

At least with SCMEP, Beneteau has secured a partner for the times ahead. "SCMEP really tailors the training or support to your own business with people who have been in the real world," Martineau said. "They've done it before. They bring their own experience."

Greater efficiency is the benchmark, as the entire Lean journey creates less waste and a just-in-time environment -- necessary changes in today's economy.

"Even though we are No. 1 in our marketplace," Burdick said, "we are in need of professional guidance of the best practices. And with SCMEP's capabilities and the staff they can draw in, it is absolutely amazing how a craft-based cottage industry can very quickly understand some of the leading-edge programs that allow us to compete on that world stage."