# The West Bend Manufacturing Company: Thriving in a Global Manufacturing Arena

*A bias for improving things, preferably the sooner the better.*

WEST BEND®

Lea A.P. Tonkin

If you want it, you can get it faster, higher-quality, and with the latest goodies on it from The West Bend Company, when it comes to many types of stainless steel cookware and small household appliances. Just don't ask for a cooker in an avocado shade. That color's been a dud for a long time. The voice of the customer (coming in loud and generally clear via big customers Wal-Mart, K-Mart, and Target1 as well as direct marketing contacts and traditional marketing research channels) pits the West Bend, WI manufacturer against all comers in the global marketplace. Brand loyalty's been replaced by, "What's new, and what's the best price for it?"

West Bend's weapons in this all-out battle for market supremacy range from teamwork to focus factories, supplier partnerships, cycle time reduction, JIT, kaizen projects, visual management, eliminating waste, and other strategies. As they explained during a recent workshop, learning to deal with high-speed changes doesn't guarantee future success, but it offers the prospect of staying in the game. Here's a progress report on selected improvement tactics.

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### *"We Had the Ability to Change and Restructure our Organization"*

By the 1984-85 time frame, West Bend management realized they were at a crossroads. Competition was heating up, more sales flowed through discount stores, and housewares were less profitable than cookware. "We asked whether we should be primarily a manufacturer or a marketer," said Gregory Miller, vice president of manufacturing and product development. After visiting Taiwan, China, Korea, and Mexico, managers decided that the company couldn't survive as just a marketer (because of a lack of value-added). "The conclusion we reached was that if we operated properly, we shouldn't worry about the competition — we had the ability to change and restructure our organization."

West Bend people began a major overhaul in their plant layout in 1986, figuring that "focus factories" organized around product lines made more sense than their traditional, function- based manufacturing operations. They simply needed more agility and less non-value-added activities, WIP, and inventory. The pace of change accelerated. Through a cooperative management-union effort, West Bend adopted a manufacturing theme dubbed QUEST (Quality-Unity-Education-Security-Trust) — aiming to build employee involvement to meet intermediate and long-term goals. They shaped an in-house training program to support a host of improvement initiatives in TQM, JIT, teaming, kaizen activities, total preventive maintenance, and other areas.

Among the "lessons learned" as West Bend revved up its competitiveness: "People cared about quality, but they didn't relate to the cost of quality," Miller said. After struggling for two years, management scrapped the emphasis on the finer details of financial performance and shifted to a more intense focus on quality.

Metrics assumed a more prominent role. "We measure just about everything," Miller said. Some of the West Bend yardsticks are shown in Figure 1.

### *Value-Added Manufacturing*

Involving employees in the campaign for continuous improvement, West Bend sought their ideas for setting goals, team roles, and defining processes. Dick Scott, general manager of Assembly & Molded Products, explained how coaching, training, and experience helped employees to document current processes, then develop and implement action plans to meet

**About The West Bend Company**

Approximately 1200 people work at The West Bend Company operations in West Bend, WI. They manufacture housewares in several categories — everything from popcorn poppers to skillets, woks, coffeemakers, and breadmakers.

The West Bend, WI manufacturing operation encompasses five focus factories: Beverage Makers, Brazed Electrics, Assembly & Molded Products, Fabricated Metals, and Premiere Cookware. Their commitment to world-class manufacturing is reflected in JIT, supplier development, waste reduction, quality enhancement, and other activities.

Established in 1911, the company is a division of Premark International, Inc. Hobart, Wilsonart, Florida Tile, Precor, and other brand name products are made by the $3.2 billion international firm. West Bend also has a value added component manufacturing operation in Mexico.

challenging improvement targets.

Better, faster machines are no guarantee of higher overall performance, Scott said. He added that workers' understanding of waste reduction, JIT and pull system concepts, and takt time is critical. "In establishing takt time, for example, it's not the rate of production, but the rate of sales, a key point in JIT," he said. "Your inventory needs to be balanced with your rate of sales."

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### *Kaizen's a "Learn By Doing" Experience*

Scott's also a firm believer in the power of kaizen (improvement) projects. These three-to-five day events pull together employees from whatever work teams/functions are needed to solve a selected problem (cost, quality, customer service).

After initial training in kaizen basics (data collection, team concepts, standard work methods, etc.), project members analyze their current processes and develop ideas to improve them. Then they finalize and implement their plans (moving equipment, other changes), test and validate the new processes, and celebrate their success. One good kaizen project can lead to another in some work areas. "We've done over 20 percent improvement in productivity each time in the drip coffeemaker center, through three events there," Scott said.

### *Faster Changes*

This bias for improving things, preferably the sooner the better, uproots people and processes. The current Assembly and Molded Products focus factory, for example, added mixers, drip coffee makers, and other new products at a faster clip during the past several years.

In turn, additional molding presses were needed for the new lines; many product innovations favored plastic over fabricated metal. They now have 28 molding presses and 11 assembly centers, and no metal stamping; any metal parts are provided by internal and external suppliers. Smaller, faster molding presses coming on board enable operators to make more rapid changeovers (different colors, for example). Employee suggestions for streamlined product flow, ergonomic improvements to eliminate lifting, and other changes are reflected throughout the facility.

As the work area layouts continued to change, seven days' WIP shrank to only a few minutes' worth, while takt times shrank to less than a minute (varying among product lines). They can take the day's Wal-Mart order for a particular product, for example, and ship hundreds of truckloads' worth within four hours. West Bend people turn out many configurations of products; 28 configurations of water distillers, for example, sport various labels/ brands.

### *Visual Management's a Plus*

West Bend's also using a variety of visual management tactics in its drive for continuous improvement. Karen Wilson, general manager of the Brazed Electrics focus facility, noted that visual Kanban signals are effective for internally signaling what to do — and not to do — next in production. It's a system requiring discipline; lost cards can be a problem, for example. And in parts replenishment, visual signals are being supplanted by computer forecast figures. Kanban benefits range from better customer response to lower cost and shorter leadtimes.

Poka-yoke (mistake-proofing to eliminate human error) helps too. They use thermoplug probes to check protector assemblies and sense for the presence of screws on mixers as part of testing.

Operator-controlled and on lights in production areas signal the need for material replenishment or process flow hangups. Selective video monitoring of automated processes provides feedback on potential glitches. Operators helped to develop visual/pictorial instructions posted in work areas as well as lockout procedures on presses. (Visual management examples are shown in Figures 2 and 3).

A centralized maintenance area, characterized by a lack of focus factory responsibility for preventive maintenance, has been modified during the past year. Now charts in work centers show what preventive maintenance is

## West Bend Metrics

- Customer service (line fill, dollar fill, key item fill)
- Inventory (finished, raw, WIP)
- Imperfection rate (quality — with a 50 percent annual improvement goal)
- Blemished (mostly dings and scratches)
- Scrap
- Unplanned down time
- Number of teams (performance targets from one focus factory to another, but service, quality, and cost are important in all areas)
- Number of suppliers
- Percent of purchase dollars on partnership (materials account for 60-70 percent of cost; much time is spent working with vendors to reduce cost)
- Hours of preventive maintenance
- Changeover time
- Hours of education
- Productivity (not direct labor)
- Warranty cost; a big headache — West Bend is working with retailers on their return policies — at least half of returned products are free of defects
- Capital spending ($15 million and growing)
- Cost reduction delivered (a major element).

***Figure 1.***

***Figure 2.*** *Debbie Kuring performs the job (on an iced tea maker) as described on an operator visual chart. Decorating equipment is used to differentiate various models.*

done and what's needed. Cycle monitoring and tools for self-analysis are on the drawing board as Total Preventive Maintenance (TPM) takes hold, Wilson said.

### *Purchasing's Focus on Total Cost*

Decentralized purchasing is another competitive weapon at West Bend, according to David Flood, a purchasing agent in the company's Fabricated Metals area. They shifted from the 1989 scenario of 20 purchasing associates (including specialists in corrugated and other commodities) in one location to approximately two purchasing people in each focus factory. "It's a more effective operation, with faster problem resolution and better working relationships," Flood said.

West Bend's tightened its focus on total cost, seeking assistance from its suppliers in its quest to eliminate overly-complex specifications, requirements, and processes. (Their total cost philosophy is shown in Figure 4.) Among its purchasing strategies for trimming total cost are reduced inventory investment at both companies; redesign, standardization, and improved construction; price savings; JIT; freight savings; and streamlined paperwork/administrative flows. JIT's substantial benefits range from shorter leadtimes to lower scrap costs and better product quality, according to Flood.

***Figure 3.*** *Mike Skelton, a workshop tour guide in Assembly and Molded Products, explains the use of visual management and TPM charts.*

### *Supplier Partnerships*

As West Bend pares supplier ranks (from 400 down to 200 production parts suppliers in the past few years) to those offering the best in quality, cost, and customer service, ties with current suppliers are becoming closer. "Supplier partners" get involved in early product design teams, crew exchanges, and joint action teams. Some suppliers such as Great Northern participate in a supplier residency program; faster problem resolution in Great Northern's supply pipeline of cartons and accessories is among the benefits of this approach.

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By the end of 1996, 40 supplier partnerships accounted for nearly 80 percent of purchases, Flood said. He added, "We look for open, cooperative, long-term relationships. Resources and knowledge are shared with the idea of improving each partner's competitive position." The purchasing agent noted continuity of supply, better visibility and communication, decreased leadtimes, and other positive results from vendor release scheduling.

Although the competitive advantages from such partnerships are substantial, each year brings fresh competitive challenges for West Bend and its suppliers. West Bend will continue to reduce its supplier base, expecting annual total cost reductions from the survivors. A monthly purchasing council meeting draws focus factory purchasing people and Greg Miller for problem-solving and planning. Purchasing's 1997 goals compared to 1989 targets are shown in Figure 5; the only sure thing for next year is that they'll set even higher performance objectives.

### *As Prices Drop, Product Development Plays a Crucial Role*

Plunging retail prices for small electric appliances and other products in West Bend's lineup keep the pressure on. For example, hand-mixer prices a few decades ago were in the $50 range; now consumers can pick one up for under $10. Then there are the bread makers, with price tags slipping from around $300 to less than $50 in some stores. Part of West Bend's strategy in dealing with price pressures is "getting the right product to market, fast," said Howard Kaney, senior project engineer. He

**West Bend's Total Cost Philosophy**

To remain competitive, The West Bend Company must continue to reduce our total costs. We recognize that our specifications, requirements, or processes are sometimes overly complex, or too restrictive, sometimes resulting in higher costs. We look to our suppliers to help identify those and other total cost reduction opportunities. We also expect them to initiate internal improvements that will drive down total costs.

***Figure 4.***

**Purchasing's Goals**

| 1989 | 1997 |
|---|---|
| • Price was the key driver | • Total cost now sets the pace |
| • Five expediters | • JIT |
| • No monitoring of suppliers | • Continuous improvement |
| • 1440 suppliers | • Consolidation to 650 suppliers |
| • 1-3 month buys resulting in 102 days supply average inventory | • Inventory day supply at 76 days average |

***Figure 5.***

added, "That's why West Bend is spending more time on quality function deployment (QFD) and talking to customers to learn what they really want."

Beating previous targets in speed to market is essential. Multi-function product development teams (including supplier reps) aim to resolve problems and conflicts quickly, chopping time from every stage of product development: idea creation, product definition, cosmetic design, package development, and engineering design. This team approach encompasses safety and reliability, QFD, agency certification, and initial product certification.

Kaney said these efforts are paying off. Time to market (from the decision to make a product until an initial customer order is completed) on heating appliances, previously in the 52-week range, now is at 26 weeks; life testing is among the leadtime issues here. For motor-operated appliances, time to market runs in the area of 20 weeks.

### More Competitive Challenges

Meeting the competition head-on while supporting the company's long-range, make-to-order vision, West Bend people are working their way through a series of product development "transition issues:"

- *Design verification* — continuing to refine their multi-function focus
- *Failure mode and effects analysis (FMEA)* — more effective use of a database on the product development process
- *Schedule commitment* — keeping schedule with no excuses
- *Cost analysis* — looking at total cost
- *Monitoring imperfection rates* — primarily a focus in finished goods; to be extended to other areas.

***Figure 6.*** *Electric skillets exiting the etch wash before coating and decorating the finished product.*

***Figure 7.*** *Fred Gauger performs a quality check on an electric skillet in the Brazed Electrics focus factory.*

Future improvements are anticipated in design verification, according to Kaney. "We need to get better at new product prototypes — doing it right the first time," he said. Late point differentiation, exceeding quality goals, and other challenges await West Bend. In late point differentiation, for example, Kaney said the company's strategy is to "differentiate as little as you must, as often as you can; structure product design around a core platform with long-term product use capability; accomplish product differentiation late in the product development cycle; achieve shorter leadtimes and processes to accomplish model differentiation; design with future product upgrades in mind; and otherwise improve performance by becoming a learning organization."

### More Changes, More Opportunities

West Bend's ensemble of improvement activities offers hope for continued market leadership. "The only thing you can be sure of is that our prices will continue to go down every year," said Greg Miller, vice president of manufacturing and product development. "We have absolute confidence in our ability to continue to drive costs down. As we make continuous improvement part of our culture, we see more opportunities in all areas."

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>
> Greg Miller

1. Wal-Mart, K-Mart, and Target account for half of company sales; the biggest chunk sells between September-November.

*Lea A.P. Tonkin, Target managing editor, is a member of the McHenry County, IL Job Training Partnership Act (JTPA) Private Industry Council.*

Editor's note: The hospitality of tour hosts and other employees during the West Bend plant tour is appreciated. Additional speakers included Ron Bastian, Joy Sterr, and Syl Stern.