The Best Factory in the World

With Norman Bodek's book "Kaikaku" having won a Shingo Prize for research, it's a good time to open it up and sample a chapter. This is a story about a time when Bodek asked Shigeo Shingo to take him to the "very best factory in all of Japan."

The plant manager, Mr. Fukuda, of the Matsushita (Panasonic) washing machine plant in Shizuoku welcomed me upon my arrival. My first impressions were of the cleanliness of the plant grounds, the fresh paint on the plant exterior, the outdoor athletic equipment, and the flowers and shrubs. As I entered the building every employee in the office bowed and greeted me.

Over tea in a meeting room, Mr. Fukuda and his team talked to me about the facility. Mr. Fukuda told me that they preferred to hire people who were enthusiastic about sports. They felt this helped create the enthusiastic climate in the plant. The athletic equipment I had seen outdoors encouraged employees to continue playing sports. In fact, the company's volleyball team was the best in the nation.

In the factory, which was spotless, I could see quick die change techniques being used on the punch presses. I was shown many poka-yoke devices invented by the employees to prevent defects. Beside each poka-yoke was a card explaining its purpose and who had invented it.

The assembly line produced mixed models, each different. In front of every employee was a video screen showing the operator specific instructions and quality standards for each washer. The video screens were also great for sharing news and solving problems together.

I noticed a person's name and picture on every production machine. "This is the person in the plant today who can fix that machine," I was told. "We do not have a maintenance department. Our engineers and workers are taught how to fix the machines. And maybe twice a year we might need some help from the outside."

Safety was a key issue. Safety teams roamed throughout the plant, looking for things that might happen. In one case a safety team found some flammable material that could easily have exploded. They also looked for things that could possibly cause injury. As a result of their efforts, repetitive motion injuries like carpal tunnel syndrome were rare. It is better to be proactive than reactive.

Most parts were made in the plant. Parts purchased from the outside were delivered to an automated system adjacent to the assembly line, and came to the operators in small carts just prior to the washing machine being assembled. The whole plant was synchronized.

However, nothing is perfect. While I was there, an operator discovered a defect, and the entire line stopped. Supervisors and other workers quickly ran over to the problem and had it fixed within minutes. Imagine the level of respect given to every operator when they have the power to stop the entire plant to ensure that not a single defect leaves it.

Almost every available inch of wall space was plastered with charts and pictures. These came from quality teams, accident prevention teams and other teams. They were displayed to keep everyone in the plant informed of improvement activities. Since the charts were created and maintained by employees and scrutinized by senior management, they were very effective.

Pictures of areas of the factory or the office hung throughout the plant. Workers were encouraged to look at the pictures and talk about them together, then to make improvements. A month later another picture would be taken of each area and posted next to the one from before. When you look at a series of pictures you can see what improvements were made.

I noticed a multitude of certificates displayed on the walls and hallways. Obviously these

recognized people who had taken advanced training courses. The plant was like an ongoing university, with everyone encouraged to get an advanced degree.

On the factory floor itself, areas were reserved for group meetings. They were furnished with chairs, tables, blackboards, and even rugs. Some were decorated with flowers, green plants and pictures.

This super-efficient facility had one sole purpose -- to serve their customers effectively. There was a drive to keep the washing machines competitively priced and offer the greatest lasting value. Continuous surveys were conducted to determine what the customer needed in an efficiently operating washing machine. For example, in Japan, because electricity costs are high, the washing machines were designed with fuzzy logic to control washing based on the size of the load and type of clothes being washed.

After the visit, I could understand better how it is possible to have a super-efficient manufacturing plant where people's needs for growth, respect and creativity are also met. When you focus on manufacturing excellence, on the needs of your customers, and on creating a facility that stimulates your employees, you can become what Dr. Shingo called, "The best manufacturing plant in the world."