

## Autoprime Corporation

Autoprime Corporation initiated a push for Just-in-Time (JIT) in all of its production facilities in the U.S. and abroad. In the Portville, Ohio plant, a consulting firm experienced in JIT implementation, Production Associates, was hired to coordinate the effort. Alice Reinhart was hired by Autoprime as a salaried production foreman to help the plant change over to a JIT production system. She was assigned to the Portville plant, which made a variety of air and oil filters for the auto parts market. The general manager at Portville was Mike Rawlings, who expressed to Alice the need for JIT. "We are in an increasingly competitive market, with low-cost producers in Asia providing similar products at lower cost. We have a reputation for quality, but the premium that people are willing to pay for that reputation is limited. We have to see what we can do to drive our production costs down and increase our flexibility in meeting retailers' needs, while maintaining our excellent quality." These sentiments were repeated by Charles Grogan, Alice's direct supervisor. "You will be working with the hourly people in implementing this change. Your challenge will be to convince them that this is necessary for the survival of the plant. The best way to do that is with positive results! Production Associates is a good consulting firm and they will coordinate the efforts and show you how best to succeed."

In their first meeting, Alice and five other new hires met with the production people and together they outlined a strategy for implementing the JIT system. The first step was to improve the downtime and changeover losses so that buffer stocks could be lowered and a greater variety of products could be run in smaller lot sizes. To this end the following teams were formed:

### **Productive maintenance team**

The objective of this team was to collect data on downtime of the various machines and to look for patterns. Repeating causes for failures would be investigated and, if possible, maintenance or design changes would be recommended to reduce the targeted failure types.

### **Equipment capability team**

The objective of this team was to look for low quality or variability in the final product and to trace problems back to their source. For example, thin spots in oil filters, which would develop into holes over time, might be traced to poor-quality paper input, and this in turn could result from either poor-quality raw material or improper in-plant processing of the raw material. If the former, the team would contact and try to work with the supplier to get more consistent quality. If the latter, the team would try to identify the root causes of the processing problems and try to eliminate them.

### **Changeover reduction team**

The objective of this team was to reduce the downtime required for changeovers. To this end, they