

Team Based Continuous Improvement

Manufacturers have always looked for ways to continuously improve their manufacturing operations. In today's competitive market, it has become even more critical and for some companies necessary for survival. These objectives might include productivity improvement, expansion or production capacity or adaptation of production for multiple products in small lots.

Continuous Improvement is based on setting up improvement activities, directed by top management with participation of all employees. It is not always successfully applied in all companies. Improvements must not be tried as a one-time fix. For continuous improvement to be successful it is critical that all levels of employees participate so the effort can be expanded and developed over time. Improvement activities must be never ending, with all employees actively part of the process.

Most employees want to contribute to the overall success of the company. They know if the company can make their product more price competitive and quality enhanced with reduced lead time then they can gain in market share and expand. Continuous improvements by all employees can accumulate into major savings and enhancements for both the company and employees.

This is where Team Based Continuous Improvement (TBCI) comes in. The company's overall goals may include objectives such as to producing X units per labor hour, increasing production volume by 50% percent, enhancing quality, reducing rework to zero, handling small lot production of a variety of products with out generating excess

inventory or shortages, reducing lead times, eliminating safety hazards or to creating a state of art production system.

These goals are ones that many manufacturing companies strive, or should strive, to control. Many companies however, don't have a program in place to effectively achieve the goals sought. Many plants have performance metrics for the entire plant and each production department but not necessarily at the team level. The most successful improvements occur when the responsibilities of cost and quality are effectively aligned to the groups of employees that make the product.

The first step in TBCI is to develop the teams or work cells. A Team Charter is then developed based on the company's goals. Although goals need to be developed from the top, there are often hidden losses or wastes that can be overlooked and involvement from all levels of workers is most beneficial to general improvement ideas. Some examples of opportunities for improvement that could be done by production line workers taking the lead include, reduction of time and alleviation of fatigue through work simplification, increasing equipment utilization rate, reduction of set-up and changeover times, raising line organization efficiently and saving space.

Special care must be taken to make the goals realistic. If the goals are unrealistic, the team members will lose faith in their performance ability, and degeneration will occur. Top management and team members must approve their performance goals where each individual is directly responsible for helping the company meet their goals.

Once realistic goals are identified and approved by top management and the team, the next step is to determine the metrics. What will be measured? Performance measurements should be determined from a base time period, ideally six months worth of data. This becomes the base line that all future measurement of improvements is based on.

To measure productivity effectively, one must use some form of labor standard hours. Efficiency is recommended because it can be factored by percent utilization. To effectively measure improvements against the base line a computer-generated model is needed to effectively keep track of performance measures. Since most plants roll their standards over once a year due to changing standard costs, this model serves as an infinite measurement of progress in productivity rather than a scenario where the goals have to be changed annually.

To ensure the continued success of the managed team concept, weekly meetings need to be scheduled to discuss the last week's performance in terms of productivity and quality objectives and to formulate future betterment goals.

Manufacturers can make significant strides with Team Based Continuous Improvement. Companies who embrace this method have increased productivity by 14-18%, decreased their scrap by 35-60%, reduced rework by 20-50 %, and reduced quality deviations by 20-60 %. These improvements are achieved because the workers get focused and synergy is generated.