



Walt Disney World: A Model For Precision Manufacturing

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What can a manufacturing person learn from Walt Disney World to help with his manufacturing business? PMPA members learned the following from the Management Update Conference recently held at Disney World in Orlando:

1. Standard work is an in-control process.
2. Employees are called "cast" members because they are always "on."
3. Controlled processes require ongoing improvement for them to continue to satisfy customers.
4. Attention to details should be a way of life.
5. Committing to the message is as important as the message itself.

Standard work means having an in-control process. Disney World is the global "best in class" for customer delight and customer service. Companies use Disney as the benchmark for "gold standard" for these important measures. Our

customers, those people who buy precision machined products for medical, automotive, aerospace and other applications, expect zero defects and products to be delivered 100 percent on time. What works for Disney might help us learn how we, too, can "delight" our demanding customers.

One of Disney's strengths is its use of standard methods. "Costuming" is an easy-to-spot standard that controls the appearance of the theme park, thus affecting a guest's experience and perception of Disney World. However, after spending several days at Disney World, it became clear that it uses a standard method for every deliverable that a guest sees. During our behind-the-scenes peek of the park, we saw evidence of these standards throughout its backstage areas. This process is similar to how our industry controls machining jobs.

At Disney, employees buy in to the standards by being involved in improving the standards. Thus, Disney achieves its goal of controlling the customer experience, while allowing employees to be a part of the process. PMPA members did not have the opportunity to observe employee meetings during the behind-the-scenes tour. However, there is plenty of evidence of employee involvement based on information from bulletin boards, monitors, calendars, and meeting minutes and schedules that are posted throughout the park's backstage areas. Standard work methods help employees to concentrate on the task at hand, rather than spend time and energy to figure out how the project should be done.

Employees are called "cast" members because they are always "on." Every Disney employee is considered a "cast" member, and this distinction goes beyond semantics. Disney



World recognizes that its purpose is to perform a "production" for its guests. Therefore, all employees have a part to play in the production. Human performance is variable in that some people perform better than others. The Disney cast member approach assures that all employees know and behave as if they were on stage. This is a high standard, yet it is consistently achieved at Disney. Before we expect our employees to commit to this standard, we need to show our commitment too. Leading by example and always wearing our personal protective equipment shows that we, too, are always "on."

Controlled processes require ongoing improvement for them to continue to satisfy customers. One thing that is universal in life and business is that if a process is not improving, it is getting worse. Staying the same is not a sustainable, competitive option. Continuous improvement is the key to sustaining success in business and in the ability to continue to satisfy customers.

Disney's continuous improvement process is more detailed than our industry's, but it is clearly based on W. Edwards Deming's Plan-Do-Check-Act cycle. This process is applied throughout Disney World and involves all employees. The use of quality improvement projects is crucial to improving manufacturing methods, so that customers continue to be satisfied. Do you have a formal process for managing continuous improvement in your shop?

(Continued on page 3)

In This Issue

Walt Disney World: A Model For Precision Manufacturing

Is Your Order Book Telling You To Consider Activity-Based Costing?

Member Profile: Brinkman International Group Inc.

Dear Industry Shrink

Recent Listserve Topics

PMPA Calendar



Activity-Based Costing Basics

ABC is an innovative approach to improving traditional costing systems. In ABC, costs are first assigned to activities performed, then these costs are applied to the goods or services produced. The costs are based on how the goods or services consume the resource. Most cost accounting systems assign costs based on one or two "cost drivers," such as machine hours or man hours. ABC has finer resolution and subdivides costs according to whether or not they are at the unit, batch, product, customer or facility level. It is this ability to assign costs by activity that gives ABC a finer resolution and avoids the over or under assignment of costs by the lump sum averaging of using only one or two cost drivers.

Unit level costs are resources acquired and the activities performed specifically for individual units of product. Materials, parts, components, as well as labor and energy are typical unit level resources.

Batch level resources are the resources used and activities required to make a batch of products. The laboratory testing to qualify a heat of steel is an example of a batch cost; the manganese, sulfur or lead added to the melt would be examples of unit costs.

Product level resources are those resources and activities used that produce a specific product. Thread gages are an example of a product cost for a company making threaded parts. Product level costs are traceable to specific products,

but are indirectly related to batches or specific units. You do not put a gage on every part, so it is not a unit level. A gage may be used on different parts, so that its cost is not attributed to a particular batch.

Customer level resources are those items and activities that are required to serve specific customers. Much of our industry's costs for quality documentation are the result of customer requirements by certain OEMs, typically PPAPs, control plans and other customer-mandated documentation.

Facility-level resources and activities are those resources and activities that provide the general capacity to produce the goods or services. Facility-level resources are particularly prone to misallocation in situations where production volumes suddenly decrease. Rent, general administration and management are examples of facility-level activities that relate directly to the scope of production, but are not directly attributed to specific products, customers, batches or individual units.

For more information, visit the following links:

www.faa.gov/ait/bpi/handbook/chap5.htm

www.pitt.edu/~roztocki/abc/abctutor/

en.wikipedia.org/wiki/Activity-based_costing

Walt Disney World...continued

Attention to details should be a way of life. I have written before about how a shops' dumpster area can indicate its state of organization, housekeeping and other methods of work. During the behind-the-scenes tour, we were asked to not photograph "off-stage" areas. I can report that the area around Disney's behind-the-scene dumpsters was as neat and orderly as any that I have seen. Disney wants to protect its guests from the realities that they might see behind the stage, but I can tell you that seeing a clean and orderly area around each of several different high-volume trash dumpsters behind the scenes was as "magical" a discovery to me as a manager, as any of the pixie dust that got scattered for the children back "on-stage" in the park. Housekeeping, everywhere at Disney, was immaculate – everywhere both "on-stage" and "off."

Committing to the message is as important as the message itself.

At Disney, millions of towels and other linens are laundered each week. Employees in the Disney laundry operations are considered cast

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members, too. They are always reminded that they have an important part to play in satisfying guests. The consistency of this message is a lesson for our industry. Consistency is not only needed in the output process, but in our words and actions as well. This will help our employees stay focused on performance and provide the best customer service.

Tinkerbell's pixie dust may not be available to you to work magic in your shop, but I assure you that these lessons from Mickey and company can help you improve your processes and company culture.