BEST PRACTICES

A Collection of Best Practices for:

Manufacturing & Production

Includes Detailed Best Practices for:

- Production Planning
- Manufacturing Engineering
- Facility Management
- Manufacturing & Assembly
- Quality Assurance

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Production Planning

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The Production Planning Group is responsible for preparing a production schedule and ensuring that all of the prerequisites for manufacturing and production are met in an efficient, cost-effective manner. Prerequisites could include raw materials, parts or components, staff, production floor space and equipment. The production planning function works closely with (and may overlap) the Procurement and Materials Management Groups.

Best Practice 1-A

Include Scheduled Preventative Maintenance Activities in Production Schedules to Streamline Internal Procedures

Include scheduled preventative maintenance activities in the daily/weekly production schedules posted at the beginning of crew shifts. Not only are surprises kept at a minimum by ensuring that all manufacturing employees on the floor are able to view the preventative maintenance activity schedule before they start working, but manufacturing employees are quickly able to notify the appropriate preventative maintenance technician once they no longer need to use the various machines or equipment.

Typical Practice (the Status Quo): Notify manufacturing employees of preventative maintenance activities while they are working. Ensure that they notify the appropriate preventative maintenance technician when they no longer need to use the machine, equipment or system they are currently working with. Upfront notification ensures that preventative maintenance activities can be performed quickly and efficiently.

Benefits of this Best Practice: Posting scheduled preventative maintenance activities within daily/weekly production schedules ensures that all manufacturing employees are aware of planned preventative maintenance activities and allows them to refer back to the schedule to better integrate their own activities with those scheduled. In short, this allows maintenance employees to plan their activities around any scheduled preventative maintenance activities, whether they involve “running PMs” or maintenance activities on equipment not currently being used by manufacturing employees on the floor. As a result, preventative maintenance activities are able to be performed in tandem with the activities being performed on the manufacturing floor with as little intrusion into the activities of the facility.

Related KPIs: Machine Uptime, Downtime as a Percentage of Uptime, Cycle Time: Equipment Repair

Best Practice 1-B

Use Forecasts and Management Reports to Improve the Accuracy of Production Activity Plans

Use forecasts (i.e., a "planned vs. actual" operating approach) and management reports to determine what has been selling and what is expected to be sold. Ensure that customer (point-of-sale data, customer inquiry content, etc.) and supplier data (capacity, inventory turnover, production rates, etc.) are included in forecasts and management reports to ensure that the Production Planning Group understands the manufacturing constraints and the amount of product they can realistically expect to produce and sell.

Typical Practice (the Status Quo): Use management reports as the sole source of data to integrate into the production planning process. Only by measuring a facility's inventory turnover and production rates (Machine Utilization Rate, Machine Performance Rate, etc.), can the Production Planning Group accurately gauge how much product the production facility should produce and how many employees to have on the floor at any point in time.

Benefits of this Best Practice: To ensure accuracy in planning production activities, forecasts and management reports should