

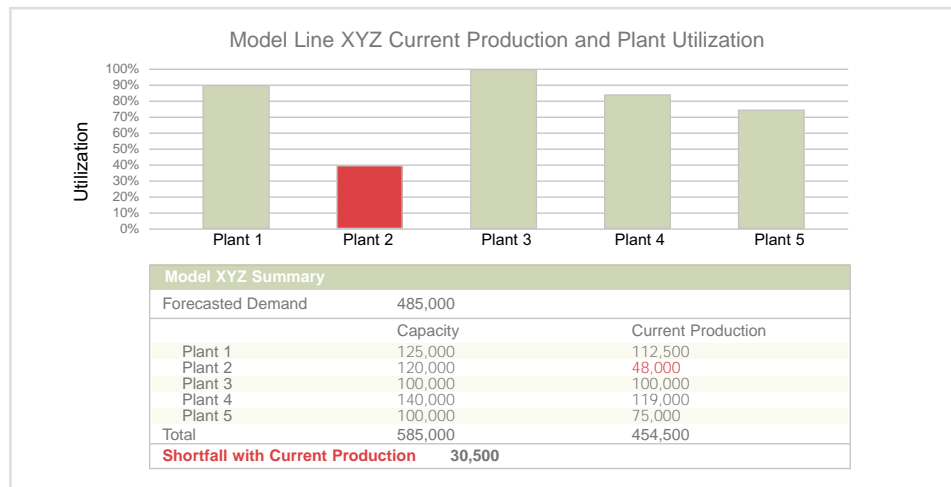
Manufacturing Scheduling and Production Planning

Manufacturing planning encompasses the hourly/daily/weekly/monthly production and machine schedules across multiple plants or production lines to meet orders or forecasted demand. Success hinges on accurate materials planning. Manufacturing managers, product managers and purchasing analysts review metrics such as production capacity and current inventories to plan appropriate production schedules, ensure raw material availability and make plant reallocation decisions when appropriate. Basic analysis includes real-time status of plant utilization and trends in market demand versus planned production runs. Advanced analysis includes hedging analysis on commodities used in production, forecasting of machine output and linear programming to optimize production resources.

Key Performance Indicators

- Production Capacity Trends
- Projected Inventory Surplus
- Days on Hand
- Production Shortage as % of Demand
- Inventory Turn
- Production Cycle
- Equipment Utilization %

Sample Report: Utilization and Capacity Analysis



This report summarizes current production for Model XYZ and combines it with the product demand forecast showing a potential shortfall at the current output levels. This type of report helps managers optimize fixed investments in plant and equipment by keeping them running near 100% of capacity and working to meet market demand. A next level of analysis would be to drill into the production status of Plant 2 to determine what other products are being produced there, the margins on these products versus Model XYZ and determine market demand for the products being produced at Plant 2.

COMMON BUSINESS QUESTIONS

- What are the current machine utilization rates?
- Which plants/lines are operating with excess capacity?
- What percent of forecast is represented by planned manufacturing capacity?
- How much product(s) do we need to produce to meet existing demand?
- How much product(s) do we need to produce to meet anticipated demand?
- What are the planned machine/line downtimes and how will they affect product supplies?
- Which products are scheduled to have a major update this year? Will we be able to meet the new demand?