

hawkeye planner



## WHY IS CAPACITY PLANNING IMPORTANT?

For most companies, production assets are finite—utilization is a key measure and a major determinant of product costs. Yet with established and even expected constraints, not all companies perform a mid-range rough-cut capacity plan (between 3 to 12 months). Capacity Planning is important for five key reasons:

### 1. Understand the unconstrained production requirements

The demand plan is converted through distribution planning to create raw production requirements by unit, but that is generally insufficient to clearly understand the expected production load. Because some products require more labor or machine hours, specific item requirements should be converted to equivalent resource requirements or “load.” Resource requirements should be calculated through demonstrated production rates rather than budgeted rates or other “standards.”

### 2. Understand available capacity

Similar to determining load, available capacity should be specified. This can be done in aggregate or in detail. It is especially important to understand available capacities of current or future bottleneck situations. Also, any future capacity changes, such as planned downtime or labor crewing changes should be represented.

### 3. Resolve any capacity exceptions

With the production load and capacity determined, it is then a very simple exercise to compare the two on a period by period basis. If an overcapacity situation exists, then steps must be taken to resolve it (pre-build, OT, alternate source). Under-capacity situations likewise may be resolved if they are detrimental to the overall cost (level loading).

### 4. Create a constrained, feasible Master Production Schedule

After capacity exceptions have been managed and agreed upon, the plan should be set as “firm”—not automatically refreshed by a system that would wipe out any changes—until the next review cycle. In this way, the

Constrained Master Production Schedule (C-MPS) can be translated into a Detailed Production Schedule that is ultimately achievable by the production site.

#### **5. Understand the total supply chain outlook**

With capacity constraints considered and resolved, the rest of the supply chain can now review the current revised supply plan. Inventory projections may have been revised by a pre-build; logistics may be revised by alternated sourcing; production costs may be revised by OT usage or crew changes. Together, all trade-offs can be evaluated and agreed through the Sales and Operations Planning (S&OP) process. Finally, the agreed production schedule will drive material requirements through the Material Requirements Planning (MRP) process.