

# Order execution process re-design lowers inventory & raises on-time delivery from 60 to 95%

After growing at compounded annual rate of 32% for five years, the company had acquired 15% share of Indian Market for specific precision engineering products used by Auto, machine tools & other industrial sectors. But, **failure to deliver on promised date more than 40 % of its orders threatened its future growth in 1992**, though it maintained stock of Finished Goods, WIP & Raw Materials equivalent to 4 months worth of sales. With over 1000 items to make for trade channel, serviced by 5 branches across India, through 120 dealers and another 800-1000 items to meet specific OEM requirements, in addition to making to order for 15 Export customers, **order execution, with all the complexities & uncertainty, was managed by intuitive decisions** with senior members of management team intervening on a day to day basis, devoting a lot of their personal time & attention, to meet delivery commitments made to customers.

Based on critical review of sales characteristics & customers' profile, products were classified as Standard Stock Items, Non-Stock Items and Made-To-Order products. As a result, product variety and complexity of planning Production and Sourcing reduced considerably.

**Decision criteria for producing in-house or outsourcing** from ancillaries were developed using concepts of sales forecasting, manufacturing lead time, safety stock and Economic Batch/Lot Quantities. Annual **Aggregate Planning** was used to plan manufacturing resources. **Systems were designed for planning** monthly, weekly & daily production; heuristic rules for job scheduling & machine loading; **inventory policies & parameters for WIP & Raw Materials were defined**; performance monitoring & **control mechanism was developed**, and changes were implemented over 3 months. Organisation & staffing changes were made to **create Production Planning & Materials department** & give it a position of importance not only in Manufacturing/Plant Management but even amongst senior strategic management group.

The results were overwhelming – within 6 months, company achieved 95% on-time delivery and reduced finished goods inventory by 52% & WIP by 37%

With improved customer satisfaction, **company was able to achieve its targeted annual sales growth of over 20%**.