

## Case Study – Parveen Industries

### The Industry

PARVEEN INDUSTRIES PVT. LTD. was founded to manufacture metallic conduits of electric cables. In the year 1983 PARVEEN diversified in the manufacture of OIL FIELD EQUIPMENT to cater to the needs of OIL INDUSTRY in INDIA and today in a span of 2 decades PARVEEN has grown to be a leader in the design, development and manufacture of oil field equipment. Our name is synonymous with quality, high precision machining and customer's satisfaction. In fact it is a one stop shop for oil field equipment.

The evidence of PARVEEN in the manufacture of high quality oil field equipment has led to its worldwide recognition. PARVEEN'S products have carved a niche not only in INDIA but in several countries abroad. Today PARVEEN has three plants (one at DELHI and two in MUMBAI) to manufacture oil field equipments while one forge plant has recently been setup at KUNDLI, HARYANA (near Delhi) to cater for not only our internal requirements but also to cater for the needs of domestic industry and for exports.

### The Client's Need

The systems at Parveen had no automated and integrated computerized systems. There was no solution that addresses the Planning & Scheduling issues in totality. Implementing ExSched (Finite Capacity Scheduling) at their manufacturing department would fulfill the requirements and the issues in planning and scheduling.

Following were the problem areas and requirements of Parveen:

1. Production Planning and Scheduling is their primary need so as to plan and schedule the shop floor activities.
2. The users at various functional areas need computerization of their day-to-day recording of business transactions. Automation and integration with other functional areas needs to be addressed.
3. Proper information flow is needed so that each function performs efficiently and effectively.

### The Solution

After a thorough evaluation of competing products, Parveen chose Walchand Infotech's ExSched. ExSched is a software package designed specially for Production Resource Scheduling on the Shop Floor. It simulates the shop floor environment and provides the most effective and efficient scheduling for the jobs.

The scheduling program uses the technique of Discrete Event Simulation. The scheduling rule uses combination of parameters such as 'Due Date', 'Priority', 'Minimum WIP' and 'Backward Scheduling'. Schedules are arrived at after considering practical constraints such as resource availability, holidays, resource breakdowns, outside operations etc.

### Key requirements addressed

- Scheduling summary, detailed reports can be generated based on the selected scheduling rule/scenario.
- The standard scheduling rule was customized according to the manufacturing needs. In case of Parveen, some of the operations such as planing, etc are performed with minimum batch quantity. Such operations were scheduled considering the minimum batch quantity, as it is economical to perform the operation at single stroke.



- Shop floor feedback system allowed to enter shop floor feed back. Based on the schedule.

#### Business Benefits

- The time spent by planning persons is considerably reduced from days to couple of hours for preparing the schedule.
- The Planning department can predict the delivery time of jobs well in advance considering the current load in the shop floor.
- Effective utilization of resources with minimum idleness of machine resources.
- Subcontracting schedule is available in advance.
- Gantt charts and reports give an overall view of the shop floor in a single screen.