

Production Planning and Scheduling Support



Customer

One of the world's largest manufacturers of construction and mining equipment.

Business Challenge

- To optimize operational efficiency and operating cost
- To meet market demand
- To optimize resource deployment
- To overcome price war and cost pressure

Mahindra Satyam's Solution

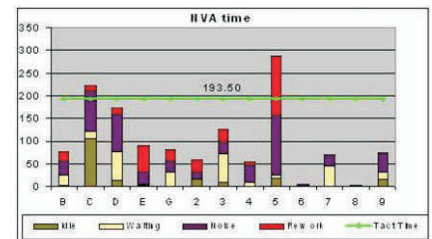
- Map the manufacturing value stream to understand inefficiencies
- Establish logical relations based on the standard time across zones
- Highlight bottlenecks and non value added activities and provide solutions for smooth production flow
- Balance manpower utilization across zones per takt time and standard times
- Section-wise planning sheet to aid production planners in evaluating line efficiency and operational flow

Input

- Production work orders
- Standard time

Output

| Zone | Activities | Base Minutes | | | Man power | | | Required Resources | | | Actual Used | | |
|-----------------------|-------------------------------------|--------------|------|-------|-----------|----|-----|--------------------|----|-----|-------------|----|-----|
| | | I | II | III | I | II | III | I | II | III | I | II | III |
| Shift Assembly | | | | | | | | | | | | | |
| 2 | Lift base (LH) | 488.10 | 0.00 | 2.62 | 0.00 | 3 | 8 | 2 | 2 | | | | |
| 3 | Finalize OP | 166.27 | 0.00 | 0.86 | 0.00 | 1 | 8 | 2 | 2 | | | | |
| 4 | 2.0m. Latch Bolt (LH) to Frame P.H. | 311.52 | 0.00 | 1.61 | 0.00 | 2 | 8 | 2 | 2 | | | | |
| 7 | Painting - External (LH) | 255.66 | 0.00 | 1.32 | 0.00 | 2 | 8 | | | | | | |
| 8 | Painting - Light (LH) to C-Panel | 99.81 | 0.00 | 0.52 | 0.00 | 1 | 8 | | | | | | |
| 9 | Test | 105.51 | 0.00 | 0.57 | 0.00 | 1 | 8 | 2 | 2 | | | | |
| 6 | Finalize | 280.73 | 0.00 | 1.45 | 0.00 | 2 | 8 | 2 | 2 | | | | |
| 6 | Finalize | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 8 | | | | | | |
| Total-Shift | | 17.12 | 0 | 8.81 | 0.88 | 12 | 8 | 12 | 12 | | | | |
| Takt | | 438.1 | 0 | 21.67 | 2.28 | 28 | 8 | 28.3 | 28 | | | | |



Tools used

- Manpower planning sheet – Excel based
- Standard time – Setting time standards on web based tool

Key differentiators

- Improved quality of production and quality documentation
- Analytics and intelligence inputs to product development/supply planning
- Quality input to continuous improvement processes

Case Study

Benefits

- Line optimization without frequent line re-scheduling and re-planning
- Productivity increase of 15-20% in a product line
- Manpower reduction of 10-15%
- Achieved 95% routing and work order sequence accuracy
- Achieved 98% bill of material record accuracy in assembly planning documentation

At Mahindra Satyam BPO's Manufacturing practice, we offer a wide spectrum of process outsourcing services to manufacturing companies across the world. Our experience and capabilities enable us to identify, create and deliver more value on your investment. Our dedicated manufacturing teams understand the nuances of the industry and help deliver value throughout the engagement. The four primary supporting areas where we offer services are Production Engineering, Industrial Engineering, Quality Engineering, and Engineering Analysis. Our service offerings include Procure to Pay, Production & Industrial Engineering, Global Enterprise Technical Support, Customer Management and Data/Document Processing Services.

For further information please write to globalmarketing@mahindrasatyambpo.com and rfi@mahindrasatyam.net.