

SENIOR MANUFACTURING ENGINEER

Job Purpose

To plan, coordinate, supervise, and continuously improve production operations to ensure projects are completed safely, on schedule, within budget, and in compliance with engineering specifications, quality standards, and customer requirements. The Production Engineer is responsible for production planning, resource utilization, engineering coordination, manufacturing process optimization, and supporting continuous improvement initiatives to maximize operational efficiency.

KEY RESPONSIBILITIES

1. Production Planning & Scheduling

- Coordinate with the Project Manager / Operational Manager to develop and execute production plans based on material availability, manpower, machinery capacity, and project delivery schedules.
- Develop, maintain, and continuously update detailed master production schedules for all secured projects to ensure timely manufacturing, assembly, testing, and shipment in accordance with customer commitments.
- Monitor production progress against approved schedules, identify critical paths, production bottlenecks, and potential delays, and implement timely corrective actions.
- Review production priorities regularly and adjust schedules to optimise capacity utilisation while meeting project milestones.
- Plan and optimise manpower, machinery, tooling, and equipment utilisation to maximise production efficiency.

2. Production Operations

- Plan, direct, coordinate, and supervise daily production activities to ensure safe, efficient, and cost-effective manufacturing operations.
- Ensure production output complies with engineering drawings, customer specifications, quality requirements, and delivery schedules.
- Promptly identify, investigate, and resolve production issues to minimise operational disruptions and project delays.
- Monitor production performance, productivity, machine utilisation, labour efficiency, and work progress against established targets and KPIs.

3. Engineering & Project Coordination

- Coordinate closely with team to ensure smooth execution of manufacturing activities.
- Review engineering drawings, fabrication drawings, technical specifications, Bills of Materials (BOM), and manufacturing documentation before production release.
- Work with the CAD team to resolve design issues, implement engineering changes, and ensure accurate revision control and as-built documentation.
- Review and verify engineering drawings and manufacturing documentation to ensure manufacturability and compliance with project requirements.

- Participate in engineering discussions to resolve technical issues relating to fabrication, machining, assembly, installation, or testing.

4. Product Development & Engineering Support

- Support prototype fabrication, product trials, and performance testing to validate engineering designs and manufacturing methods.
- Evaluate manufacturing feasibility and recommend engineering improvements to enhance product quality, manufacturability, reliability, and safety.
- Investigate and troubleshoot engineering and manufacturing issues, identify root causes, and implement effective corrective and preventive actions.

5. Production Cost and Process Improvement

- Analyse production costs, labour productivity, machine utilisation, and material consumption to identify opportunities for cost reduction and operational improvement.
- Recommend and implement process improvements to increase production efficiency, reduce waste, improve workflow, and optimise manufacturing capacity.
- Identify automation opportunities and improvements in production methods without compromising quality, safety, or customer requirements.
- Capture and implement lessons learned from completed projects to improve future production planning and execution.

6. Inventory & Resource Planning

- Coordinate with the Warehouse Department to ensure timely availability of raw materials, standard components, consumables, and production tooling in accordance with production schedules.
- Monitor material shortages and coordinate with relevant departments to minimise disruptions to production activities.
- Assist Management in evaluating available production capacity and resource planning to support future project awards and sales opportunities.

7. Performance Monitoring & Reporting

- Develop, compile, and maintain accurate production reports, resource planning reports, production forecasts, work-in-progress status, capacity utilisation, and project progress reports.
- Monitor actual production performance against production plans and identify variances together with recommended corrective actions.
- Provide regular updates to Management regarding production performance, project status, risks, recovery plans, and capacity availability.

8. Quality, Safety & Compliance

- Ensure compliance with the Company's Quality Management System (ISO 9001), Project Quality Plan (PQP), Safety Management System (ISO 45001), and all applicable statutory and customer requirements.
- Promote safe working practices throughout all production activities and ensure compliance with established safety procedures.
- Support internal and external quality audits and implement corrective actions where necessary.

9. General Responsibilities

- Achieve assigned production targets, project milestones, and departmental KPIs.

- Foster effective communication and collaboration across all functional departments.
- Maintain proper documentation, engineering records, and production reports.
- Undertake any other duties and responsibilities assigned by the Production Manager or Management from time to time.

REQUIREMENT

- Candidate must possess at least a Diploma or Bachelor's Degree in Mechanical Engineering, Manufacturing Engineering, Industrial Engineering, Production Engineering, Mechatronics Engineering, or an equivalent qualification. Candidates with relevant technical experience may also be considered.
- Minimum Five (5) years of relevant working experience in production engineering, manufacturing, fabrication, equipment assembly, or New Product Introduction (NPI) within a manufacturing environment.
- Experience in semiconductor equipment manufacturing or process equipment is highly preferred. Hands-on experience with Gas Delivery Systems (Gas Cabinets, Valve Manifold Boxes (VMB)), Chemical Delivery Systems (CDM, CTDM, CTU), Slurry Delivery Systems (CBU, STBU, SBDU), or similar industrial equipment will be an added advantage.
- Experience in production planning, capacity planning, project coordination, manufacturing process control, and production scheduling.
- Ability to read and interpret engineering drawings, fabrication drawings, Bills of Materials (BOM), technical specifications, and manufacturing documentation.
- Good understanding of manufacturing processes, fabrication, machining, welding, assembly, and quality control principles.
- Knowledge of Lean Manufacturing, Continuous Improvement, 5S, Kaizen, or Six Sigma methodologies will be an added advantage.
- Familiarity with ISO 9001 Quality Management System, Project Quality Plans (PQP), ISO 45001 Occupational Health & Safety Management System, and safe manufacturing practices.
- Strong analytical, problem-solving, planning, and decision-making skills with the ability to identify production bottlenecks and implement practical solutions.
- Excellent organisational and time management skills with the ability to manage multiple projects and prioritise competing production requirements.
- Computer literate with good working knowledge of Microsoft Office applications (Excel, Word, PowerPoint, Outlook). Experience with ERP, MRP, production planning, or manufacturing execution systems (MES) will be an added advantage.
- Good interpersonal, communication, and coordination skills with the ability to work effectively with cross-functional teams.
- Able to work independently with minimum supervision while contributing effectively as a team player in a fast-paced project manufacturing environment.
- Proficient in spoken and written English and Bahasa Malaysia. Knowledge of Mandarin will be an added advantage due to the need to communicate with certain customers, suppliers, or production personnel.
- Willing to work overtime or outside normal working hours when required to meet project schedules and customer delivery commitments.
- Must be willing to work in Perai, Penang.