



## JOB DESCRIPTION

|                  |  |                        |                                   |
|------------------|--|------------------------|-----------------------------------|
| Position Title   | <b>Manufacturing/Industrial Engineer</b> | Department(s)          | <b>Engineering &amp; Planning</b> |
| Direct Report(s) | <b>None</b>                              | Revision/Approval/Date | <b>07/08/08</b>                   |
| Pay Schedule     |  | Pay Type               | <b>Exempt</b>                     |

### JOB SUMMARY

The Manufacturing/Industrial Engineer is responsible for the efficiency and effectiveness of all related production processes and process aspects required to manufacture a high quality, effective product in a repeatable and cost effective manner. As such the engineer must have knowledge and capabilities in industrial, mechanical, product design, automation, chemical and thermal reflow systems as well as a high level of capability in electronic product design and development. He/she is responsible for determining the most effective ways to use the basic factors of production—people, machines, materials, information, and energy—to make a product.

The Manufacturing/Industrial Engineer will drive improvements in all manufacturing processes, including those related to products, equipment, human interface and materials design and quality. He/she is responsible for associated metrics management and analysis, process troubleshooting and new process development/qualification. Responsibilities include the “operational ownership” of all manufacturing processes, as well as support of all products during their manufacturing lifecycle.

This position requires active involvement with the production processes and personnel. Through interactions the Senior Manufacturing/Industrial Engineer will provide technical support for all critical process and product issue resolution as well as technical direction to the production staff. Supports document control activities to ensure effective documentation is available for all product builds, and process operations.

The Manufacturing/Industrial Engineer must be a problem solver. He/she must combine their technical knowledge with that of human capabilities and operational limitations. He/she should be able to organize many details and manage multiple priorities related to operations and organization. He/she must be able to communicate with both operations personnel and management with equal effectiveness and professionalism.

Candidates must have excellent communications skills, be metric driven, show high initiative, be self-motivated and have the ability to act independently to resolve issues on technical matters. Must be skilled in MS Office applications, have experience with generating design documentation, have an ability to write technical reports and proposals, provide cost and schedule estimates and participate in teams.



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### RESPONSIBILITIES

- Increasing productivity through the management of people, methods of business organization, and technology.
- Designs, lays out, and implements production systems to ensure maximum utilization of critical resources, maximum throughput, minimum cost and capacity growth; involves integrating equipment, people, material flow systems, and information systems.
- Develop management control systems to aid in financial planning and cost analysis, and design production planning and control systems to coordinate activities and ensure product quality.
- Design or improve systems for the physical distribution of goods and services, as well as determining the most efficient plant layouts.
- Drive continuous improvement in labor costs through waste reduction, production floor design, and changeover improvement.
- Evaluate, implement and monitor processes and operating systems for the manufacture of printed circuit boards and sub-assemblies.
- Use mathematical modeling to understand process equipment and staffed plant capacities.
- Responsible for maintaining and improving all factory processes and related metrics. Production Efficiency, cycle times, DPPM, Capacity capabilities and others as needed.
- Provides ongoing product & process improvements to meet quality, CPI, CI and production goals.
- Provides “on the floor” technical support as required for critical process and product issues.
- Ability to design processes, evaluate results and drive solutions to improve the processes.
- Works closely with production and support teams to manage work flow.
- Create, edit and maintain necessary documentation.
- Develop and support new manufacturing processes.
- Ensures factory process control.
- Owns all released products through “end of life”.
- Product design (DFX).
- Capability studies.
- Analyze system requirements, capacity, cost, and customer needs to determine feasibility of a project and development plan.



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- Partner with co-workers, customers and vendors to discuss existing and potential engineering projects or products.
- Prepare engineering drawings and specifications for construction, relocation, and installation of manufacturing equipment and facilities.
- Determine capital equipment needs.
- Assist in the budget process for equipment, training, software, and equipment installation projects.
- Prepare procedures, reports, and plans for successful execution of engineering processes.
- Defect reduction initiatives.
- Personnel training.
- May be asked to perform other duties at a lower or higher level of proficiency or not related to this classification on occasion.

### EDUCATION / EXPERIENCE REQUIREMENTS

- Bachelors Degree in Engineering from an accredited college or university.
- 3-5 years experience in related field required.
- Proficiency with computer software programs (Microsoft products, AutoCAD), Aegis Preferred.
- Thorough understanding of the quality management system.
- Ability to multi-task, set priorities and meet strict deadlines.

### SKILLS AND ABILITIES REQUIREMENTS

- Demonstrate time management & leadership skills.
- Using logic and reasoning to offer solutions to problems.
- Strong organizational and communication skills.
- Teaching others new processes and procedures.
- Proficiency with computer software programs (Microsoft products, AutoCAD), Aegis preferred



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### EXPECTATIONS

- Set the example by actively leading the department to company goals.
- Clarify expectations and seek additional training as needed.
- Build quality into work. Ensure processes are consistent with quality objectives. Be aware of current quality levels versus target levels.
- Develop and achieve departmental/company goals and controls. Drive improvements in areas of cost reduction, processes, quality and productivity.
- Work is performed within established professional standards and practices.

### PHYSICAL REQUIREMENTS:

- **Temperature:** 65 – 75 degree
- **Humidity:** Normal
- **Other Hazards:** None (poor ventilation, chemical, electrical, etc.)
- **Percentage of time spent outside:** 0%
- **Protective Clothing Required:** ESD Smock
- **Physical Activity:**

|            |             |            |            |
|------------|-------------|------------|------------|
| Sit – 50%  | Stand - 15% | Walk – 20% |            |
| Squat - 1% | Bend - 2%   | Twist - 2% | Lift – 5%  |
| Kneel - 1% | Drive - 2%  | Climb - 1% | Crawl – 0% |
- **Reach above shoulder - 1%**      **Other - \_%**
- **Maximum consecutive time during the normal workday for each activity:**

|                             |                |               |              |
|-----------------------------|----------------|---------------|--------------|
| Sit – 230 min               | Stand - 30min  | Walk – 30 min |              |
| Squat - 10min               | Bend - 20min   | Twist - 20min |              |
| Kneel - 10min               | Drive - 180min | Lift – 30 min | Crawl – 0min |
| Reach above shoulder: 10min | Push - 0min    | Pull - 0min   |              |
- **Tools/Equipment Used:**

|       |        |         |
|-------|--------|---------|
| 1-33% | 34-66% | 67-100% |
|-------|--------|---------|

|                             |          |          |  |
|-----------------------------|----------|----------|--|
| <b>Computer/Office</b>      |          | <b>X</b> |  |
| <b>Test Equipment</b>       | <b>X</b> |          |  |
| <b>Production Equipment</b> | <b>X</b> |          |  |



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### Repetitive Use of Hands & Feet:

|  | Not Req'd | Occasional | Frequent | Continuous |
|--|-----------|------------|----------|------------|
| Simple Grasping                                      |           |            |          | X          |
| Pushing/Pulling                                      |           | X          |          |            |
| Typing/Data Entry                                    |           |            | X        |            |
| Fine Manipulation                                    |           | X          |          |            |
| Repetitive use of foot in operating machine controls | X         |            |          |            |

### Sensory Requirements:

Weight required to be manually lifted each normal work day:

(Occasional = 1-33%, Frequently = 34-66%, Continuous = 67-100%)

|                  | Not Req'd | Occasional | Frequent | Continuous |
|------------------|-----------|------------|----------|------------|
| Up to 10 pounds  |           |            | X        |            |
| Up to 20 pounds  |           | X          |          |            |
| Up to 35 pounds  |           | X          |          |            |
| Up to 50 pounds  |           | X          |          |            |
| Up to 75 pounds  | X         |            |          |            |
| Up to 100 pounds | X         |            |          |            |
| Over 100 pounds  | X         |            |          |            |

**Lifting and Carrying:** Files and documents, Production tools & equipment.