The manufacturing industry represents companies that, through the use of tools, human labor, machinery, and chemical processing, turn raw materials or parts into finished products that can be sold in the marketplace.

As everyone is focused on AI, VR, and AR, we can’t forget that things still need to be made and built. Innovation and technology require physical components. There’s a huge opportunity for manufacturers to thrive in the area.

— Christine Holly Ngo
VP of Operations & Business Development at Silicon Valley Elite Manufacturing

Representative Industry Occupations

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Salary</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembler</td>
<td>$34,000–46,000</td>
<td>HS diploma</td>
</tr>
<tr>
<td>Machine Operator</td>
<td>$39,000–50,000</td>
<td>HS diploma</td>
</tr>
<tr>
<td>Manufacturing Technician</td>
<td>$39,000–56,000</td>
<td>AA/AS</td>
</tr>
<tr>
<td>Process Engineering Technician</td>
<td>$39,000–56,000</td>
<td>AA/AS</td>
</tr>
<tr>
<td>Material Handler</td>
<td>$35,000–46,000</td>
<td>HS diploma</td>
</tr>
<tr>
<td>Welders / Cutters / Solderers</td>
<td>$47,000–62,000</td>
<td>HS diploma</td>
</tr>
<tr>
<td>CNC Programmer</td>
<td>$67,000–125,000</td>
<td>Vocational</td>
</tr>
<tr>
<td>Buyer / Purchasing Agent</td>
<td>$68,000–125,000</td>
<td>BA/BS</td>
</tr>
<tr>
<td>First-line Supervisor of Production Workers</td>
<td>$90,000–116,000</td>
<td>AA/AS</td>
</tr>
<tr>
<td>Materials Engineer</td>
<td>$88,000–151,000</td>
<td>BA/BS</td>
</tr>
<tr>
<td>Industrial Engineer</td>
<td>$87,000–152,000</td>
<td>BA/BS</td>
</tr>
<tr>
<td>Industrial Production Mgr</td>
<td>$129,000–171,000</td>
<td>BA/BS</td>
</tr>
</tbody>
</table>

You can climb a career ladder in manufacturing through work experience. You could, for example, start as an assembler, move to quality control, receive training as a machinist or welder, advance to engineer, then end as plant manager.

The Bay Area’s Advanced Manufacturing industry consists of a variety of subsectors, including food and beverage products, computer and electronic products, fabricated metal products, machinery, and advanced automotive manufacturing.
### Top Regional Employers by Manufacturing Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; Beverage</td>
<td>Impossible Foods</td>
<td>Redwood City</td>
</tr>
<tr>
<td></td>
<td>See’s Candies</td>
<td>Daly City</td>
</tr>
<tr>
<td>Semiconductors</td>
<td>National Semiconductor</td>
<td>Santa Clara</td>
</tr>
<tr>
<td></td>
<td>Intel</td>
<td>Santa Clara</td>
</tr>
<tr>
<td></td>
<td>Applied Materials</td>
<td>Santa Clara</td>
</tr>
<tr>
<td></td>
<td>Marvel Semiconductors</td>
<td>Santa Clara</td>
</tr>
<tr>
<td>Medical Devices</td>
<td>Abbott</td>
<td>South San Francisco</td>
</tr>
<tr>
<td></td>
<td>Intuitive Surgical</td>
<td>Sunnyvale</td>
</tr>
<tr>
<td></td>
<td>Cepheid</td>
<td>Sunnyvale</td>
</tr>
<tr>
<td></td>
<td>Johnson &amp; Johnson</td>
<td>Millpitas</td>
</tr>
<tr>
<td></td>
<td>Medtronics Spine</td>
<td>Sunnyvale</td>
</tr>
<tr>
<td>Aerospace</td>
<td>Maxar Technologies</td>
<td>Palo Alto</td>
</tr>
<tr>
<td></td>
<td>Lockheed-Martin</td>
<td>Sunnyvale</td>
</tr>
<tr>
<td></td>
<td>Northrop Grumman Systems</td>
<td>Sunnyvale</td>
</tr>
<tr>
<td>Computer / Electrical</td>
<td>Apple</td>
<td>Cupertino</td>
</tr>
<tr>
<td></td>
<td>Oracle</td>
<td>Redwood City</td>
</tr>
<tr>
<td></td>
<td>Intel</td>
<td>Santa Clara</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>Genentech</td>
<td>South San Francisco</td>
</tr>
<tr>
<td></td>
<td>Gilead Science</td>
<td>Foster City</td>
</tr>
<tr>
<td></td>
<td>Beigene USA</td>
<td>San Mateo</td>
</tr>
</tbody>
</table>

### Top Hiring Companies (2023)

- Gilead Science
- Apple
- Genentech
- Intel
- Applied Materials
- Headway Technologies
- Johnson & Johnson
- Abbott Laboratories
- Lockheed-Martin
- KLA Corporation
- Beigene USA
- Northrop Grumman Systems
- Siemens
- Intuitive Surgical

Source: Econovue (2023)

Methodology: Companies were filtered by growing companies (actively hiring) within the NOVAworks consortium.

### Training Options

- Advanced 3D CAD & Drafting
- AutoCAD with SolidWorks
- Biotechnology Manufacturing Cert.
- CNC Machinist
- CNC Programming CAD/CAM
- Electronic Systems Technology
- Inspection & Pipe Welding
- Optical Engineering
- PCB Layout Design
- Procurement & Supply Chain Management
- Retail Operation Specialist / Forklift
- SAP/ERP Sales & Distribution
- Smart Manufacturing Technology
- Supply Chain Management
- Warehouse & Forklift Operations
- Welding Fabrication

**Manufacturing is more than just putting parts together. It’s coming up with ideas, testing principles, and perfecting the engineering, as well as the final assembly.**

— James Dyson
Entrepreneur

### Career Guides & Industry Research

- Association of Manufacturers Bay Area
- AMBay Area Course Catalog
- Bay Area Manufacturing Careers
- Semiconductor Equipment & Materials International (SEMI)
- SF Made

### Staffing Agencies

- Adecco Scion Staffing
- AppleOne Johnsen Service Group
- ATR International Coast Personnel
- Randstad Aerotek
- ResourceMFG Akraya
- Volt

### Job Boards

- iHire Manufacturing
- ManufacturingJobs.com
- Manufacturing San Jose
- Talroo

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