



**Job Title:** Vacuum (HV & UHV) Technician

**Location:** Hayward, CA

**Department:** Manufacturing/Production

**Reports To:** General Manager

**Job Type:** Full-Time (on-site)

**Job Summary:**

We are seeking a skilled and detail-oriented **Vacuum (HV & UHV) Technician** to join our team. This role involves the assembly, testing, troubleshooting, and maintenance of UHV systems used in scientific research, semiconductor fabrication, materials science, or related applications. The ideal candidate will have hands-on experience with high-vacuum and UHV components, a strong understanding of vacuum principles, and the ability to work from technical drawings and schematics.

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**Key Responsibilities:**

- Assemble, test, and maintain vacuum systems, chambers, and components in accordance with Thermionics specifications.
  - Operate and maintain vacuum pumps (turbo-molecular, ion, cryo, etc.) and leak detection systems (e.g., helium mass spectrometer leak detectors).
  - Perform vacuum furnace brazing and electron beam testing.
  - Conduct troubleshooting and root cause analysis of vacuum component failures and performance issues.
  - Use hand tools, torque wrenches, and other precision equipment to assemble ebeams, valves and thermocouple gauge tubs.
  - Collaborate with engineers to support R&D or production activities requiring vacuum environments.
  - Maintain detailed records of quality control, system performance, test results, and maintenance procedures.
  - Follow cleanroom protocols and ensure a contamination-free environment with superior quality.
  - Comply with all safety standards and procedures in a laboratory or manufacturing environment.
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**Qualifications:****Required:**

- High school diploma or equivalent; technical or vocational training in vacuum or mechanical design is a plus.
- 2+ years of hands-on experience working with high or ultra-high vacuum components.
- Familiarity with vacuum measurement tools (Pirani, cold cathode, ion gauges, gauge tubes) and leak detection techniques.
- Ability to read and interpret mechanical drawings.
- Strong attention to detail and quality.
- Excellent problem-solving and communication skills.

**Preferred:**

- Associate degree or higher in mechanical, electrical, or vacuum technology.
  - Experience in cleanroom or semiconductor manufacturing environments.
  - Knowledge of materials compatibility and surface preparation for HV and UHV applications.
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**Working Conditions:**

- May involve work in laboratory environments.
  - Some lifting of equipment or components up to 50 lbs.
  - Occasional travel to customer sites or facilities (if applicable).
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**Compensation & Benefits:**

- \$55,000 - \$75,000, depending on experience
  - Health, dental, and vision insurance
  - 401(k) plan with employer match
  - Paid time off and holidays
  - Opportunities for training and career advancement
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**To Apply:**

Submit your resume and a cover letter outlining your experience with HV and UHV components to [sales@thermionics.com](mailto:sales@thermionics.com).