



## Project Profile:

# Bandage Manufacturing Facility

**Owner: HemCon, Inc.**

**Location: Tigard, Oregon**

Evergreen Engineering provided engineering services and general contracting services for the expansion of a bandage manufacturing facility. The project involved expansion from an 11,000 sq ft pilot line operation to over 33,000 sq ft of manufacturing, office, and R&D space. Sub-areas within the manufacturing facility include: Gel Mixing, Gel Filtration, Degassing, Bag-in-a-box, Cleaning, Lyophilization, Gel Filling, Sponge Processing, Aliquoting, QA/QC, and Engineering.



### **Evergreen Engineering provided the following services:**

- Preliminary Engineering and Scope Development
- Detailed Design and Construction Documents
- General Contracting Services
- Construction Oversight with the Engineering Design Team Involvement

### **Specific tasks included:**

- Lyophilizer Vendor Qualification and Procurement
- Manufacturing Flow Evaluation and Option Analysis
- Conceptual Layout Drawings
  - Plans, Sections and Elevations
- Preliminary Agency Review
- Architectural Design
  - Phased Construction
  - Office/Lab/Mfg Spaces
  - Cleanroom Design
- Structural Design
  - Multiple Equipment Platforms
  - Seismic Design
  - Slab Reinforcement and Utility Trenches

- Mechanical Design
  - Cooling System
  - HVAC & Ventilation
  - WFI System
  - Process Utilities
- Electrical Design
  - New Service to Building
  - Equipment Power
  - Equipment Controls
- Construction
  - Permitting
  - Contractor Selection
  - Contractor Coordination
  - Schedule and Budget Management

### **Evergreen Engineering Performance**

The client was pleased with our capability to complete the project on-time and under budget. As a result, we have been rewarded with repeat business.