



## Position Offered

### Machine Design Engineer

Rebound Technologies  
Denver, Colorado

#### Company Summary

Rebound has developed IcePoint<sup>®</sup>, a liquid sub-cooling technology delivering superior control and efficiency to industrial freezers. This cooling product plugs into existing freezer systems at cold storage facilities and provides the control to deploy bursts of high capacity cooling, ideal for accelerating blast freezing processes and mitigating peak energy expenses. No other cooling technology offers this control and Rebound accomplishes it with a 35 percent efficiency gain over legacy, vapor compression systems. Facilities not only realize a boost in revenue from increased product throughput, but they also benefit from decreased energy expenses.

Since 2012, Rebound has leveraged \$3.5M in government grants and \$1.3M in private funding to advance IcePoint<sup>®</sup> from concept, to pilot and now into production. Rebound's first customer, Lineage Logistics, is the second largest cold storage company in the United States with 110 facilities and recently purchased the largest cold storage organization in Europe.

Rebound Technologies is an Equal Opportunity Employer.

To learn more about us go to [www.rebound-tech.com](http://www.rebound-tech.com).

#### Machine Design Engineer Role Scope

The machine design engineer will create production-ready machine and system designs to help drive Rebound's technology from a proof-of-concept pilot to scaled manufacturing. As Rebound's expert in machine design, CAD, blueprint development, and GD&T, this team member is responsible for machine design aspects of component and system development to meet final product specifications. This includes component machine design, off-the-shelf component selection, skid design, and assembly design. This team member will collaborate with thermal process engineers and manufacturing leadership to achieve these goals.

## **Essential Accountabilities and Responsibilities**

### **Preliminary Separation System Design and Component Selection**

Combine expertise in process equipment function and design with thermal process specifications to select appropriate separation system equipment. System design will include nanofiltration membranes, high-pressure pumps, and energy recovery devices/pressure exchangers. It may also include heat exchangers, bulk solid transfer, and crystallizers. Select associated process monitoring sensors including pH meters, flow meters, temperature sensors, and conductivity sensors.

### **Design Vetting and Iteration**

With the team, build and test concept designs to determine viable features and those that need improvements. Iterate on designs based on lessons learned.

### **Production-Scale Separation System Design**

Create precise and detailed drawing packages for final full-scale separation system with input from thermal process engineers and manufacturing team. Design should consider function, cost, static and dynamic loading, manufacturability, and ease of maintenance.

### **Engineering Change Orders**

Revise or redesign models and drawings for new and updated components and assemblies based on feedback from manufacturing and new product development. Design change requests will require excellent understanding of design for manufacturing and assembly concepts

## **Qualifications/Requirements**

- Bachelor's in mechanical or chemical engineering required, Master's preferred.
- 6+ years as a machine designer required.
- Hands on with a high level of drive, energy and integrity.
- Strong analytical skills and problem solving capabilities.
- Self-managed and driven to achieve measurable results aligned with strategic objectives.
- Experience with equipment and system design using reverse osmosis or nanofiltration, high pressure pumps, booster pumps, and pressure exchangers, including selection of off-the-shelf parts and design of custom components.
- Be able to effectively use ASME Y14.5 or ISO Geometric Dimensioning & Tolerancing standards, bills of materials, exploded diagrams, and other technical documents as required to support R&D and Production.
- Ability to apply mechanical and chemical engineering principles to design work.
- CAD expertise including 3D modeling, blueprints, GD&T, and exploded diagrams

- Knowledge of Autodesk Fusion, Autodesk Inventor, Solidworks, or equivalent parametric modeling software.
- Proven history of machine design expertise and the ability to provide work samples.
- Excellent written and verbal communication skills.

**Salary:** Compensation commensurate with experience.

## **Work Sample**

With your resume, please provide a sample of a previous body of work or project, along with a short description, that demonstrates the skills required for this position.

If previous work is unavailable or confidential please go to the following link where you'll find a brief exercise to complete.

<http://rebound-tech.com/employment-opportunities>