About Vandstrom, Inc.

(www.vandstrom.com)

Vandstrom is a leader in the convergence of polymer and protein membrane technology. We have developed a high-performance membrane platform for water, life science, industrial biotech, food, and dairy separation applications.

Nature's ability to separate chemical elements at the molecular level with the use of highly specialized proteins in the channels of cell walls was the subject of a 2003 Nobel Prize in Chemistry. Vandstrom has developed advanced capabilities in the expression, purification, and production scale-up of porins from biological sources methods. When these proteins are embedded into a robust polymer structure, this achieves a unique membrane performance profile.

Our core technology is based on new chemistry and manufacturing methods to achieve highly permeable membrane material with narrow molecular size exclusion cut-off. By adding an active protein layer, the membranes will separate constituents at the ion level.

Vandstrom is focusing on the development of a wide range of applications for its patented technology. The aim is to provide disruptive solutions for the water treatment, health, food, and other industries enabling these industries to enhance their products, reduce costs, and save energy. The membranes are designed to withstand challenging and sometimes harsh environment in various industrial applications.

The company started-up its own manufacturing facility in 2019 to produce an ultrafiltration product that was originally developed in 2016 as a support substrate for a biomimetic membrane but has been successfully supplied in the food, dairy and industrial bio-tech markets. The UF element product is currently in use at several sites in a live production environment in the US, Europe and Asia Pacific, and it helps customers achieve high efficiency molecular separation in these "high value" fluid streams.

About the Role

Vandstrom is seeking for an experienced Process Engineer with a Chemical or Mechanical Engineering background. This role focuses on supporting technology transfer of newly developed membranes into manufacturing, continuous improvement of current manufacturing processes, and supporting data analysis from the manufacturing and quality control processes.

This role serves as a key interface between Manufacturing, Development, and Product Management.

Work Location

This position will be located at the manufacturing facility located in Gaithersburg, MD.

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JOB DESCRIPTION

Job Title: Process Engineer – Membranes
Department/Job ID: Production Management
Reports To: Head of Manufacturing
Direct Reports (if any):

Valid Date: 03/29/2022
Version #: 2

Job Overview: The Process Engineer serves as a key interface between Manufacturing, Development, and Product Management, supporting process and technical changes within manufacturing. The Process Engineer supports the upscaling of new membrane formulations, analyze and troubleshoots operations, define and implements statistical control methods, and plays a crucial role in overseeing quality control data to construct data-driven decisions. The Process Engineer is also responsible to develop and implement new test methods in the quality control space.

Role 1: Pilot/Development Casting

Responsibilities:

- Operate the pilot casting system, analyze data, and make decisions on how to upgrade the equipment, transfer the process to full-scale manufacturing, and be the knowledge base for pilot caster operations including small-scale preparation.
- Work closely with R&D in the development process to ensure that manufacturing considerations are included in the development process. Be the manufacturing representative on the tech transfer team.
- Work with product management on developing timelines, requirements, and specifications for new membranes concerning production equipment capabilities and suggest and drive improvements in equipment capabilities where needed.

Role 2: Production Casting Process Engineering

Responsibilities:

- Work closely with the production casting team and support the team on a technical basis.
- Give open feedback to the casting team about data, results, and areas for improvement.
- During casting runs, be present and support both technically and operationally.Work to improve the stability of the casting operations.
- Evaluate production data for both troubleshooting and process improvement.
- Define and implement statistical control methodologies to control membrane production processes.

Role 3: Quality Control

Responsibilities:

- Oversee the QC process for manufacturing,
- Support QC personnel where necessary and troubleshoot tests and test results.
- Work with R&D to ensure proper method transfer for both current and future methodologies.
- Develop and maintain the data management system for QC and development data.
- Use software processes such as databases, JMP, process information systems, etc., to analyze data

Role 4: Continuous Improvement

Responsibilities:

- Own the Quality Improvement Plan for membranes.
- Support and develop the process qualification, evaluation runs, and validation runs for new membranes.
- Work with the manufacturing team to continually increase quality and yields.
- Continually review data on the production casting systems to ensure membrane performance is within specifications.

Other Duties as Assigned

Requirements:

- A basic understanding of the needs for a manufacturing environment
- A technical knowledge of how lab tests are done (including UV-Vis, TOC (Total Organic Carbon), HPLC, Karl Fischer, flow, and pressure measurement)
- A good understanding of data analysis including strong statistical approaches through both excel and JMP software

Additional Qualifications:

- At least a BS in Chemical Engineering/Polymer Science/Chemistry is required
- Experience in a manufacturing environment (previous employer, co-op, internship)
- The ability to move about the production facility, wearing the appropriate PPE (Personal Protective Equipment) (safety glasses,dust mask, hairnet, safety shoes), and to be able to lift weights more than 10 kg
- Eligible to work in the U.S