Process Engineer

Posting Date: 17 Nov 2026
Position: Process Engineer
Department: Manufacturing
Job Type: Full Time, In-person
Reports to: Manager, MTech & Engineering
Reason: Replacement of Existing Role
Location: 265 Watline Avenue, Mississauga, Ontario

Role Overview

Microbix is seeking a self-directed Process Engineer to join the Manufacturing Technology (MTech) team within the Manufacturing department. This role combines process automation and equipment engineering with hands-on bioprocess development.

The role supports Microbix's Antigen, Quality Assessment Products (QAPs), and Viral Transport Media (VTM) businesses.

Key Responsibilities

- Lead cross-functional improvement and automation projects from requirements through design, vendor selection, implementation, qualification, training, and handover.
- Design, size, and optimize processes and equipment for biological processing, testing, filling, capping, labeling, packaging, and swab-based products.
- Improve downstream unit operations (tangential flow, depth, and sterile filtration, centrifugation, chromatography, UV inactivation) for yield, throughput, and robustness.
- Design and execute bench- and pilot-scale studies; analyze data, set process ranges and acceptance criteria, and convert findings into manufacturing controls.
- Prepare user requirement specifications and technical evaluations; support procurement, FAT/SAT, installation, commissioning, and equipment integration.
- Develop and execute risk-based commissioning and qualification (IQ/OQ/PQ), including requirements traceability, deviation resolution, and final reports.
- Troubleshoot equipment and processes using structured root-cause methods and implement corrective actions that improve reliability, capacity, quality, and cost.
- Lead technology transfer into Manufacturing and Quality Control, including procedures, batch documentation, training, and post-implementation support.
- Create and maintain protocols, technical reports, process flow diagrams, equipment specifications, work instructions, and change-control documents.
- Collaborate with Manufacturing, QA, QC, R&D, Engineering, Supply Chain, and suppliers to meet operational, quality, safety, and schedule needs.
- Support continuous improvement within ISO 13485 quality systems, applying data integrity and good documentation practices.

Education and Experience

- Master's degree in chemical, Biochemical, Mechatronics, Automation, or Process Engineering, Biotechnology, or a related discipline.
- 3–7 years of experience in biotechnology, pharmaceutical, medical-device, diagnostic or other regulated manufacturing.

Required Qualifications and Skills

- Strong process-engineering fundamentals: mass balance, flow, pressure, heat transfer, pump and tubing selection, scale-up, and equipment sizing.
- Hands-on experience with both manufacturing equipment and biological processes; candidates may be stronger in one but must show credible experience and learning agility in the other.
- Working knowledge of downstream bioprocessing (filtration, centrifugation, or inactivation) and the ability to plan experiments and interpret process data.
- Experience integrating automated equipment (sensors, actuators, pumps, valves, controls, alarms, recipes, basic industrial communications) and working with machine builders and controls specialists.
- Proficiency in statistical analysis and structured problem solving; experience with DOE, capability analysis, control charts, FMEA, 5-Why, and fishbone analysis preferred.
- Strong technical writing skills for protocols, reports, specifications, risk assessments, and technology-transfer packages.
- Strong project ownership, judgment, and communication skills, with the ability to manage competing priorities and work with operators, scientists, quality partners, vendors, and leaders.

Assets

- Programming or data-acquisition experience (Python, SQL, VBA, C#, or similar) for analysis, equipment interfacing, reporting, or workflow automation.
- Experience with PLC/HMI or SCADA, machine vision, robotics, motion control, serialization, or automated liquid handling.
- Experience with CAD or process-design tools (Fusion 360) and preparing layouts, P&IDs, or equipment drawings.
- Knowledge of Lean Six Sigma, process or computer system validation, 21 CFR Part 11, or GAMP 5.
- Experience with viral antigen manufacturing, sterile fill-and-finish, medical devices, diagnostics, or biosafety-controlled operations.

Salary & Benefits

- Salary range of $90,000 to $105,000 per annum.
- Health, Vision, Dental, Health Spending (HAS), Basic Life, AD&D, Employee Wellness Program.
- RRSP Matching and free parking.

How To Apply

Email your resume and cover letter to: aakash.patel@microbix.com or human.resources@microbix.com.