



POSITION: Senior Process Engineer

DEPARTMENTS: Proposals & Product Development

SUMMARY: The main duties will be to focus on the segment of ProSep's technologies and products relating to mixing (AIM, ECLIPSE, and MAX), including process simulations (salt mass balances and gas dehydration) and modelling (CFD, UniSim, and other simulations). Responsibilities include creating proposals, from the specifications review, process simulation and design, PFD and P&ID definition, and cost compilation, all the way to proposal writing, preparation, and submittal. This position requires internal communication with the Sales, Projects, and Engineering teams, and external communication with technical specialists of oil & gas companies, as well as engineering clients (EPCs), including, but not limited to, technical clarifications, HAZOP participation, and training program development – internal and external. Other areas of process engineering, design, and simulation support may be required for other process areas: such as gas, crude, water, and solids treatment systems.

Process Engineer must be able to evaluate a process's efficiency, effectiveness, quality and safety. This includes the use of engineering tools such as AutoCAD, HYSYS, UniSim, Microsoft office products and spread sheets, as well as reviewing and applying engineering standards that are universal (ANSI, PED, ASME, etc.) and customer specific. Process Engineer is also expected to relate to customers about their technical and commercial needs and shall take these into consideration when providing expertise and solutions.

EDUCATION/TRAINING:

- Engineering Degree – BS/MS/PhD in Chemical, Mechanical, Industrial or Petroleum
- Process Simulation Training - HYSYS, UniSim, AutoCAD, design and draft software

EXPERIENCE/QUALIFICATIONS:

- 1-3 years related oil & gas/industrial process industry experience
- 1-3 years related to mass transfer applications experience
- Experience with mixers/mixing technology is a plus
- Experience with Produced Water Treatment process development is a plus
- Experience with CO2 Capture, or other mass transfer / adsorption processes is a plus
- Experience with ion exchange, ion capture or rare earth metals is a plus

MAJOR AREAS OF RESPONSIBILITY:

- Develop process systems solutions utilizing ProSep products and technologies, where applicable and cost effective; this would include PFD and P&ID definition, process equipment selection, performance evaluation, and sizing
- Draft reports based on process evaluation and analysis. Create internal records for distribution and knowledge sharing.
- Respond to customers with needs arising from process changes. Analyse, discuss, and recommend solutions.
- Know, apply, and use ProSep proprietary and licensed process simulation programs for main focus areas, including compact mixing and separations, crude treating, produced water treatment, and mass transfer processes
- Discern clients' technical / commercial drivers and respond with appropriate process and economic solutions

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- Take principal responsibility for advanced engineering calculations and utilization of multi-faceted simulation models
- Exhibit aptitude for complex problem-solving skills demonstrated in the development of exceptionally / innovative engineered process solutions
- Perform basic engineering calculations such as heat and mass balance, equipment duty specifications, fluid flow and hydraulics, heat exchange, valve and orifice sizing, etc.
- Understand overall process system and interdependency of various unit operations
- Assume responsibility of proposal process and technical specifications evaluation for inquiry packages to include all variations of process solution options – internals, equipment, skid, and / or systems
- Support sales efforts for active projects from a process solution / application selection perspective, including presentation of technical solutions

KNOWLEDGE, SKILLS, AND ABILITIES:

- Excellent interpersonal, communication, & team-building skills
- Strong organizational skills, written and oral communication skills, self-starter, multitasking skill a must to meet multiple deadlines
- Self-starter, able to seek out opportunities to grow the business and pursue them with minimal direction
- Business, finance, or economics aptitude and / or background a plus
- Ability to effectively present information and respond to inquiries from managers, peers, clients, vendors, etc.
- Interest in developing new applications and technologies
- Mechanical aptitude desirable
- Familiarity with industry standards and norms related to process units